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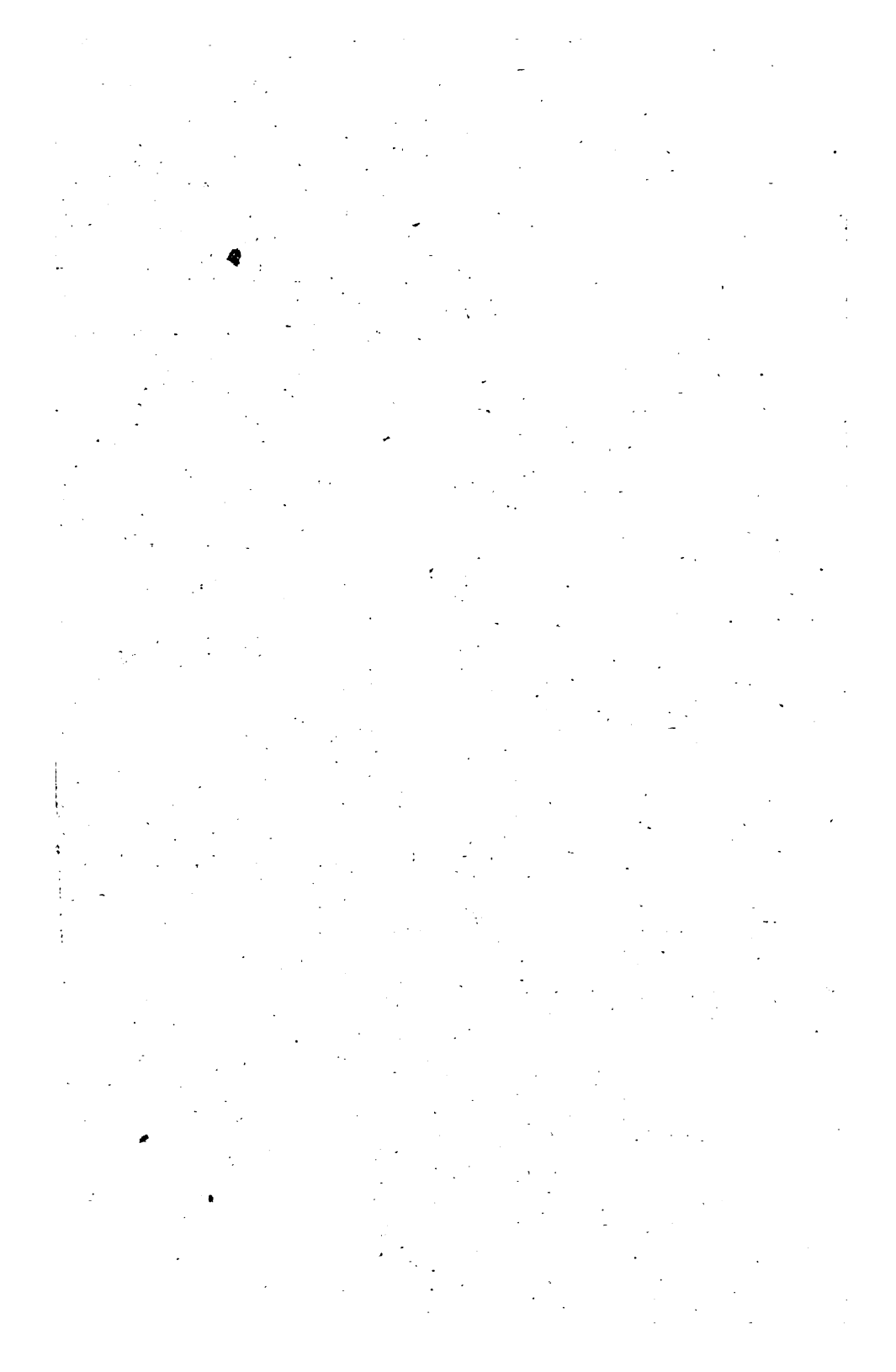
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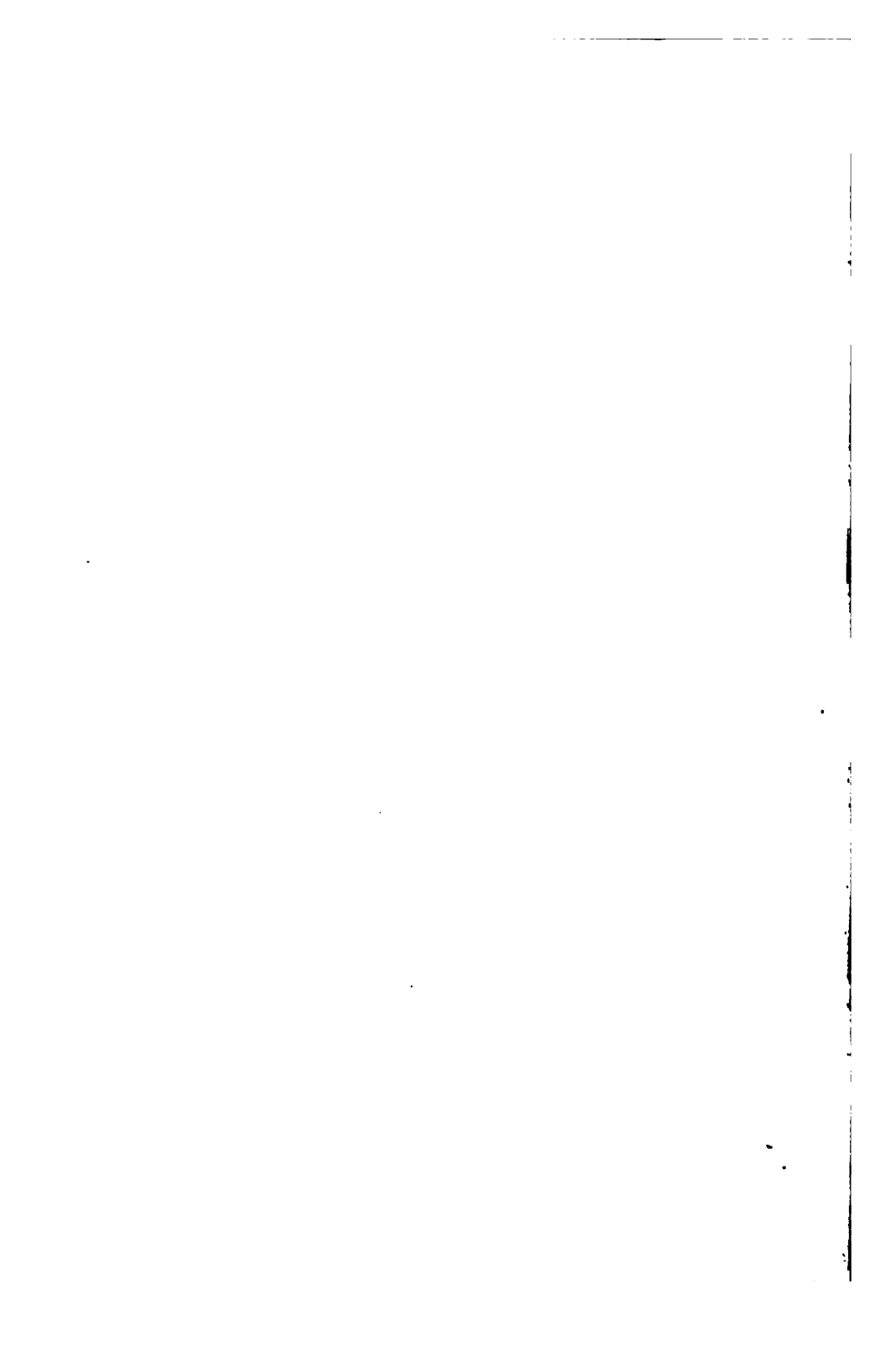
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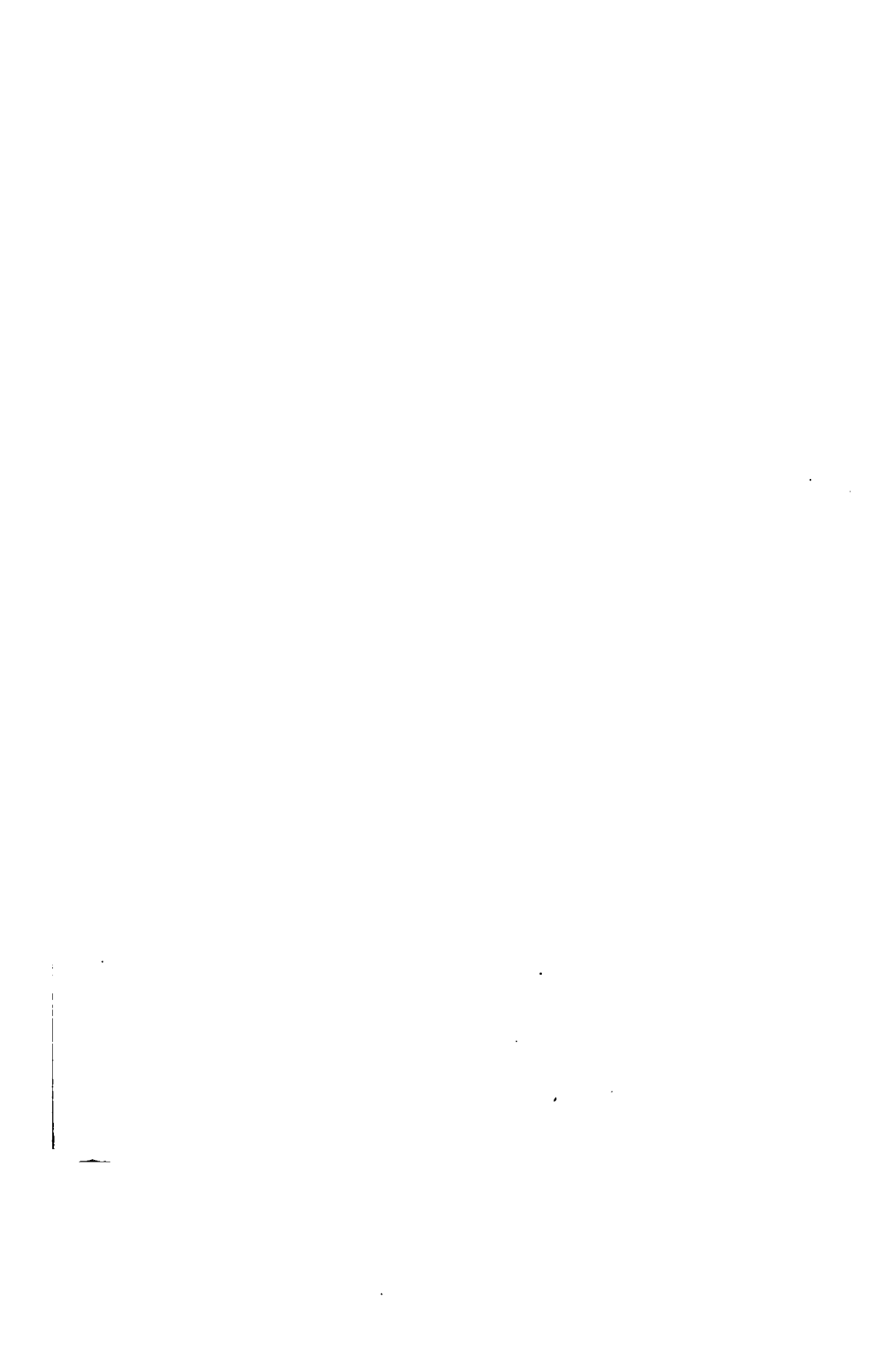
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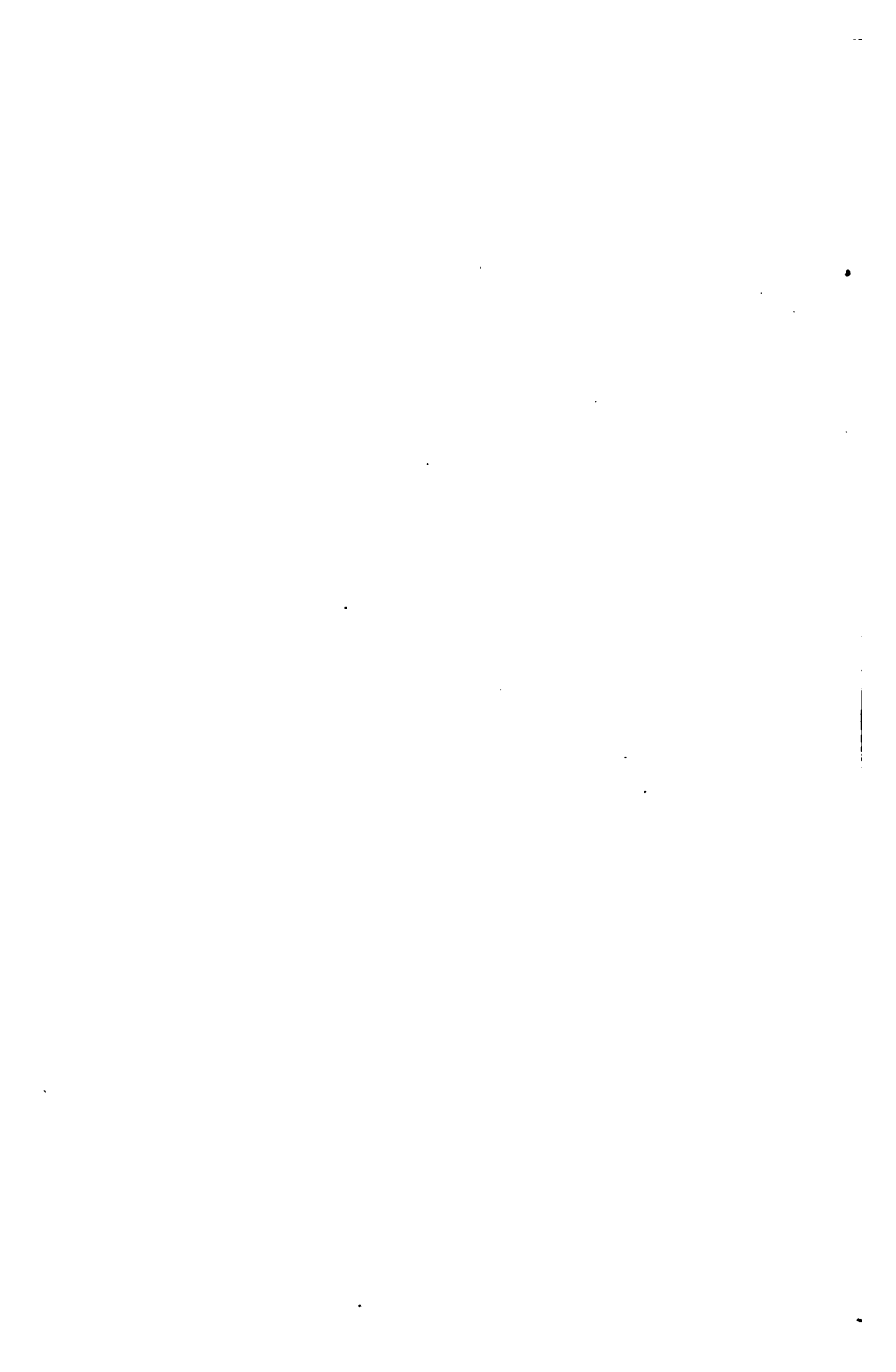
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QUARTERLY JOURNAL

OF THE

STATISTICAL SOCIETY.

MARCH, 1861.

REPORT to the STATISTICAL SOCIETY on the *Proceedings of the Fourth Session of the INTERNATIONAL STATISTICAL CONGRESS, held in LONDON, July, 1860.* By JAMES T. HAMMACK, ESQ., F.S.S., one of the General Secretaries of the Congress.

[Read before the Statistical Society of London, 18th December, 1860.]

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I.—Introduction.

SINCE the first organization of the International Statistical Congress this Society has naturally felt a deep interest in its proceedings; and after each meeting of that body, it has been our custom to receive from one of the Fellows present on the occasion, some account of its labours. Although the Fourth Session of the Congress has recently been held in our midst, and the circumstances attending it are still fresh in the recollection of many now present who took so useful and prominent a part in the proceedings, it has seemed good to the Council of the Society not to depart from the established practice. Indeed, they consider,—and I think we shall all concur in the opinion,—that the assembly of the Congress in this metropolis must be regarded as an event full of happy omens for the cause of Statistical Science in this country, and in the highest degree interesting to English statista. Even to those who were personally concerned, whether as active participators or merely as interested spectators, an opportunity of reviewing the work of the Congress, and of discussing its forms of procedure, will not be unacceptable; while to them and to all of us, the late gathering of men of different nations, devoted to the same pursuits, and animated by the same

motives as ourselves—men brought together by an earnest desire for guidance, instruction, and mutual support in our own department of study—cannot be a topic devoid of interest or unworthy of attention.

In complying with the invitation of the Council to lay before the Society a report on the proceedings at the recent meeting, I cannot help wishing that the task had been confided to other hands competent to do full justice to the subject. I am conscious of the disadvantage of following such eminent statisticians as Professor Levi and Mr. Samuel Brown, whose facile pens have described the work of the previous meetings of the Congress. I may venture to lay claim, however, to one essential attribute of the truthful historian, namely, a personal and familiar knowledge of all the circumstances and events to be brought under notice; the humble part which it was my privilege to fill has given me this single advantage, and I rely upon the wonted indulgence of the Society to overlook the other deficiencies of the narrator in the faithfulness of his narrative.

I will not detain you by referring to the origin of the International Statistical Congress; it is a matter of history. Nor need I particularize the objects it seeks to accomplish, or the means it adopts to attain them, as they are well known to this assembly. Suffice it to remark, that although there is a considerable analogy between the Congress and the peripatetic associations so well known in this country and on the Continent, and so useful in keeping alive an interest in science by their periodical gatherings in different localities, in one peculiar feature of its constitution, the former is essentially different. The distinctive character of the Statistical Congress is derived from the fact that it is convened and carried on under the immediate auspices of the Government of the country in which it is held; and it is formed of the representatives of different nations, whose deliberations are assisted by other statisticians specially invited to attend. The usefulness and the very existence of the Congress depend, in a great degree, upon the authority and support extended to it by the Governments of Europe.

On the occasion of the Third Session, held at Vienna, in 1857, Dr. Farr, who attended as the delegate from England (his colleague, Mr. Fonblanque, having unfortunately been prevented by an attack of illness from reaching the Austrian capital), was authorized to state that if it should be considered desirable that the Fourth Session should be held in London, Her Majesty's Government would be happy to receive the Congress. He further stated, that although its reception in London might be less brilliant than it had been in the imperial cities of Paris and Vienna, he believed it would be as cordial, and, referring to the geographical position of England as offering no obstacle, he added, in the happiest terms:—"To our

"islands of the West representatives may readily come from the States of America, and from distant colonies, where statistics are cultivated under various circumstances. England is the centre of a large part of the civilized world. But some one says, England is divided from the Continent by the sea. Well, Gentlemen, in remote ages, Celts, Italians, Saxons, Danes, and Normans, unpalled, crossed the sea, founded colonies, and settled in England. Come, then, and visit the descendants of your ancestors: they will give you a hearty welcome."

Such sentiments as these could not fail to meet with a hearty response; the assembly expressed the most friendly feeling towards this country, and separated with the idea that its next meeting would be held in London in 1859. This expectation, however, as to the time of reassembling was not destined to be realized, owing to various circumstances which suggested the expediency of a postponement until the present year. The Congress had hitherto met every second year, but no rule of its constitution required that its meetings should take place at regular intervals.

Last autumn Her Majesty's Government repeated the expression of their willingness to receive the Congress during the present year, and the Austrian Commission, with whom the decision rested, at once accepted the invitation. We are accustomed to hear a good deal about Routine, Red-tapeism, and Circumlocution, but these great obstructive potentates appear to have lost their reputed powers in reference to the Congress,—an innovation of the most remarkable kind, claiming not merely toleration and protection, but requiring to be organized and conducted under the direct authority of the Government. Despite the strong conservatism of the official mind, the way "not to do it" remained undiscovered in this instance.

II.—*Preliminary Arrangements.*

I should imperfectly perform the duty I have undertaken, were I to omit to notice a few of the principal matters connected with the arrangements for the reception of the Congress. Of the preliminary proceedings in connection with the previous Sessions, we necessarily know nothing; we could only judge of the effect after the raising of the curtain. By glancing at the work of preparation not presented to the public eye, we may somewhat mar that effect, but we shall acquire a better idea of the difficulty of the task, of the amount of labour and co-operation necessary to its accomplishment, and the various accessaries contributing to a successful result.

As soon as it was definitively settled that the Congress would assemble in London, it became apparent that no time was to be lost in making arrangements for its reception. It devolved upon the Board of Trade to initiate these arrangements, and the President,

Mr. Milner Gibson, at once appointed a Provisional Committee consisting of a few gentlemen connected with different public departments, with the honorary Secretaries of this Society, to act until the usual Organization Commission should be formed. This committee met in January last, and applied itself to the consideration of practical details. To facilitate business, it nominated a sub-committee, consisting of the Right Hon. W. Cowper, M.P., Mr. Fonblanque, Dr. Farr, Mr. Valpy, and myself, afterwards the Executive Committee of the Congress. After ascertaining the convenience of the expected foreign members, the meeting was fixed for the 16th July, in order that it might take place before the rising of Parliament. Invitations to the different Governments of Foreign States to nominate delegates were forwarded through our diplomatic agents abroad, and the Colonial Office undertook that representatives of the principal British Colonies should be appointed. The introduction of the latter element in the *personnel* of the Congress was a novelty, but I think no one here will question the wisdom of this arrangement which formed so useful and interesting a feature in the composition of the assembly. It was suggested by Dr. Farr and adopted by the committee solely with the desire of extending the usefulness of the labours of the Congress over as wide an area as possible, and not from any feeling of vain-glory, although England may well be proud of her colonial possessions, for she has known how to colonize, and in her great and distant provinces has spread her language and free institutions over every quarter of the globe. In most of the colonies the value of statistics is appreciated, but in some the more engrossing occupations of the colonists have led to a neglect of statistical inquiry. What better plan of teaching by example could be followed than to introduce delegates from our colonial dependencies into an assembly where they would learn something of what the old nations of Europe were doing in this respect, and meet the eminent men whose lives have been devoted to this branch of human knowledge? By the course pursued, the distant but important members of the British empire will profit by the teachings of the Congress no less than the mother country herself.

The committee conceived the idea of compiling a digest of British statistics from reports furnished by the different public offices, a work which they hoped Foreign States might be induced to imitate; but it was found impracticable, owing to the pressure of other business, to prepare the document in time, although several valuable papers were contributed.

Amongst other matters which occupied the attention of the executive officers at this time, was the selection of a suitable edifice for the meeting. That any difficulty should have been experienced on this head in the largest city in the world, where great public

buildings meet the eye on every side, is rather remarkable; but it is nevertheless true, that the First Commissioner of Public Works and Buildings, when disappointed in the expectation of obtaining the use of apartments occupied by the learned societies at Burlington House, found himself considerably embarrassed in obtaining fitting accommodation. At this juncture, the authorities of King's College, at the instance of Dr. Guy, placed the large hall and other portions of their establishment at the service of the committee; and the Councils of the Society of Antiquaries and the Geological Society having, with equal liberality, accorded the use of their apartments in Somerset House for the meetings of the Sections, all further difficulty was removed, and a *locale* rendered appropriate by its official, scientific, and educational associations, was secured.

The enlarged Commission of Organization was now formed. Consisting of about eighty noblemen and gentlemen, it included the names of distinguished members of both Houses of Parliament without distinction of party, of men eminent in science, and of others who had paid special attention to statistics. Its first duty was to determine what subjects should be included in the programme to form the basis of the deliberations of the Congress. On this all-important question a report was submitted to the Commission by Dr. Farr, and I think all who have read that interesting essay, will pronounce it to be a most valuable contribution to the literature of statistics. Tracing the progress of the science from the time of Sir W. Petty to our own day, Dr. Farr shows the importance which has been attached to it in England and all civilized states, and, defining the true province of the statist, he stands forward to repel the hostile criticism to which statistics, in common with every other science, has been exposed. The principal statistical works of this country, from the Domesday Book to our modern census, are passed in review, and the names of the principal cultivators of political, mathematical, vital, and financial statistics are honourably mentioned. The practical work and objects of the Congress are lucidly explained, and the proposal to constitute six Sections is then put forward, with the names of the gentlemen who had promised their assistance.

The plan proposed by Dr. Farr was unanimously adopted by the Commission, and as a comparatively short period of time now remained for the preparation of the programme, great exertions were necessary on the part of all concerned. It is a simple act of justice to the writers of the several portions of the programme—most of them men immersed in important professional or official engagements—to say that, in setting aside their pressing avocations to attend to the business of the Congress, they performed a generous act of self-devotion, and well deserved the special thanks which his

Royal Highness the Prince Consort desired might be conveyed to them from him for the services thus rendered to their country.

For the First Section, Mr. Leone Levi, who is well known to be one of the first who urged the necessity and importance of collecting Judicial Statistics in this country, undertook to write the portion of the programme on Civil and Criminal Statistics; and Mr. Hill Williams prepared a paper on the Statistics of the Subdivisions, Transfers, and Burdens of Real Property. The papers for the Second Section (Sanitary Statistics), were written by Miss Florence Nightingale, Dr. Sutherland, and Dr. Farr. For the Third Section (Industrial Statistics), papers were prepared by Mr. Caird, M.P., and Mr. Donnelly, Registrar-General of Ireland, on Agricultural Statistics; and by Mr. B. Hunt, on the Statistics of Mineral Produce and of Mining. The principal portion of the programme for the Fourth Section (Commercial Statistics), was prepared by Mr. Newmarch, on Methods of Investigation as regards Statistics of Prices and Wages in the principal Trades,—a valuable paper, which I am glad to observe enriches the pages of the last number of the Society's *Journal*; Mr. Crawford contributed a short paper on the Statistics of Banks. For the Fifth Section, which embraced the Census, and Army and Navy Statistics, the papers were prepared by Dr. Farr and myself on the first subject; and by Sir R. M. Bromley, Dr. Bryson, Dr. Balfour, Mr. Hodge, and Dr. Sutherland, on Naval and Military Statistics. Lastly, for the Sixth Section, which took a somewhat wide range of subjects, the papers were by Dr. Guy, on Statistical Methods and Signs; by Mr. Winter Jones, on the Statistics of Literature; by Mr. Samuel Brown, on Statistical Units; by Mr. Valpy, on International Statistical Abstracts; and by Admiral Fitzroy, on Meteorological Observation. The mere mention of several of these names is a sufficient guarantee for the ability with which most of the subjects were treated.

But the task of preparing the programme was not finished even when all these papers were written and seen through the press, forming, when printed, a quarto volume of more than 200 pages. For the convenience of the foreign members of the Congress, it was necessary to provide an edition of the programme in *French*, and on a short notice it was not easy to find persons competent to translate papers abounding in technical expressions into that language. The Committee were fortunate, however, in obtaining the assistance of competent translators in London, and some portion of the work was performed by M. Maurice Block, of Paris. At the establishment of Messrs. Eyre and Spottiswoode, the Queen's Printers, the printing of the French edition was very creditably performed, although the compositors and others employed were exclusively Englishmen. It will readily be conceived that a programme composed of twenty-four

distinct papers, written by twenty persons, and printed in two languages, occupied a considerable time in preparing; and notwithstanding the great exertions of the editor, Dr. Farr, and the most effective co-operation on the part of the writers, it will scarcely be a matter of surprise that it was completed only just in time for the meeting of the Congress.

But the disadvantage which no doubt resulted from the unavoidable delay attending the production of the programme, was, in a great degree, atoned for by the plan adopted of stating at the end of each paper the several propositions or resolutions to be discussed, the rest of the paper being regarded as merely introductory. These propositions were referred to Committees of Sections, consisting of statista and others specially conversant with the subjects, by whom they were examined, and modified where necessary. The Presidents and Vice-Presidents of the Sectional Committees which were thus formed on the plan adopted by the British Association and other societies, were afterwards chosen to preside over the Sections of the Congress, and the Secretaries also, in like manner, continued their efficient services.*

III.—Proceedings of the Congress.

The course of events has now brought us to the opening of the Congress, which took place on Monday, July 16th, 1860. Most of the official delegates had arrived in London during the previous week. Twenty-four different countries, including the principal States of Europe, the United States of America, and Brazil, were represented; and in addition representatives attended for thirteen of the most important British Colonies. The delegates appointed for Sardinia and for Canada unfortunately failed to arrive in time. In the large hall at King's College were assembled, besides the official delegates, several of the foreign Ambassadors and Ministers, the Secretary of State for Foreign Affairs, the President of the Board of Trade and other Members of the Government, Lord Brougham, Earl Stanhope, the Earl of Shaftesbury, and other noble lords, several Members of the House of Commons, and about 400 gentlemen, including the heads of the principal learned and scientific societies of the metropolis, who had been specially invited to take part in the proceedings of the Congress. The business of appointing the officers and of agreeing to rules for the regulation of the assembly having been disposed of at a preliminary meeting, His Royal Highness the Prince Consort took the chair, as President, at 4 P.M., and opened the Congress with an inaugural address, no less remarkable for its

* Mr. T. Michell, F.R.G.S., now of the British Legation of St. Petersburg, and Mr. W. Clode, of the Registrar General's Office, Somerset House, besides acting as Secretaries of Sections, rendered valuable assistance to the Executive in carrying out the arrangements.

eloquence and philosophic spirit, than for its eminently practical character and perfect suitability to the occasion. This admirable address has been printed in our *Journal*. The proposal of Lord Brougham that the meeting should give vent to its feelings of gratitude and respect to his Royal Highness for the signal service rendered by him to statistical science, was received with enthusiasm.

On the second day (Tuesday), the six Sections met at 10 A.M., in their respective rooms, and having elected their officers, proceeded to the discussion of the portions of the programme referred to them. His Royal Highness the Prince President visited each of the Sections during the morning, and evinced a lively interest in the proceedings. The General Meeting assembled at 2 P.M., the Right Hon. W. Cowper, M.P., Vice-President, in the chair. The reception of oral reports of the Foreign Delegates on the progress of statistics in their respective countries since the last meeting of the Congress, formed the principal business of the day. As these reports, which might be made either in French or English, are full of interest, I propose to submit a brief abstract of the most important of them.

His Excellency BARON CZERNIG, Delegate for Austria, and President of the Vienna meeting of the Congress, referred to the impulse given to statistical inquiry in connection with recent reforms in that empire, and described the labours of the department under his direction. In 1857 a census of the whole of the Austrian empire had been taken on a uniform plan, in conformity with the recommendations of the Congress. Reports on the statistics of the subdivisions of land (by Baron Czernig himself), on several branches of industry, on the mercantile marine, on the state railways, on the hospitals of Vienna, and on indirect taxation, had been published. Other works were in progress, some of which had been interrupted by that potent enemy of science—war.

DR. VON HERMANN, Delegate for Bavaria, briefly described the progress of statistics in that kingdom. A special census had been taken of the deaf-and-dumb, the blind, and the insane, and an important work on suicides had been prepared, together with special reports on railways, postal service, mines, and salt works. The cadastre was nearly completed; 26,000 cadastral maps were on sale, and every landed proprietor in Bavaria could obtain an exact map of his estate for *sixpence*. Dr. von Hermann exhibited some tables of mortality prepared on a new plan, the deaths in each year of age being compared with the births of the year in which the deceased were born. A curious result had been evolved, namely, that when the births were most numerous, the vitality of the generation was greatest.

M. QUETELET, Delegate for Belgium, and President of the First Session of the Congress, read an interesting statement prepared by

M. Heuschling, who was unable to be present, describing the recent labours of the Belgian Central Statistical Commission. Its publications had embraced Electoral Statistics, Statistics of the deaf-and-dumb and blind, of the militia, of the finances of the communes, &c. Of the general census of 1856, only a preliminary account had been published; the detailed tables, however, were in the press. Agricultural statistics had been collected in conjunction with the census. The record of the causes of death, although still imperfect, had been found useful. A royal decree of May last, had offered a prize of 20,000 francs to the best works on the progress of Belgium since 1830.

M. DAVID, Delegate for Denmark, noticed the works of the Danish Board of Statistics, prepared under his direction, on various subjects, including Commercial Statistics, Criminal Statistics for the fifteen years 1845-54, births, deaths, and marriages during the same period, and suicides during the years 1845-56. Concerning suicides, M. David stated that in Denmark the proportion to the population (26·4 annually to 100,000 living) was more than twice as great as in France, Prussia, and Norway, and more than threefold as compared with England, Belgium, and Sweden; but he ascribed these differences mainly to the fact of the returns in other countries being less accurate than those of Denmark, where, however, the propensity to suicide unhappily prevailed in a high degree.

DR. ASHER, Delegate for Hamburg, Bremen, and Lubeck, gave an account of the statistical documents drawn up under official authority, chiefly relating to the commerce and consumption of the Hanse Towns.

PROFESSOR WAPPÄUS, of Hanover, reported on the proceedings of the Statistical Bureau of that kingdom. In addition to the regular publications, new volumes had been issued on Criminal Statistics—the first report of the kind—and on Agrarian Statistics. From the latter it appeared that the redemptions of seignorial rights and charges had been so numerous, that by far the greater portion of the landed property is now in the possession of small freeholders. Professor Wappäus dwelt on the importance of the Statistical Departments in the German States acting in concert, the relations between the States being too intimate to admit of separate action with success. We may hope that the attainment of this object will be amongst the other fruits of the Congress.

DR. ACKERSDYCK, Delegate for Holland, said that the system of mystery long maintained by the Government of the Netherlands, had been completely abandoned, and important statistical documents were now published. Since 1851 each province had had its Statistical Bureau, and a Central Commission had been established recently in compliance with the suggestion of the Congress. It was an inde-

pendent department, empowered to call for returns from all the branches of administration, and to control all the official statistics.

M. DE BAUMHAUER, the other Delegate for Holland, presented an elaborate paper, affording a comparative view of the penal legislation of Saxony, France, Belgium, and the Netherlands, and reported amongst other matters that a record of the causes of death had been commenced, and that the task of analyzing the census returns of 1859 was in progress in the provincial offices.

BARON MALTZAHN, of Mecklenburg-Schwerin, reported that the statistical department in that duchy had continued its investigations respecting territorial subdivisions, the climate, the movement of the population, the mercantile marine, savings' banks, postal administration, &c. It had also drawn up and published tables showing the amount of game and wild animals killed in the years 1849-56.

PROFESSOR DAA, Delegate for Norway, described the nature of the statistical information collected at the last census of that country in 1855, and also of that furnished by the various branches of the public service. Sanitary statistics had received considerable attention, and the classification of the causes of death had established several important facts; amongst others, that the remarkable disease elephantiasis, although it had spread amongst the fishing districts and along the coasts, was rarely found in the interior, and was by no means so fatal as had generally been believed. Mental diseases were, however, more prevalent in Norway than in most other countries, and the returns on the subject were peculiarly valuable, because from the sparseness of the population and the fact of people usually remaining where they were born, the influence of hereditary circumstances could readily be traced.

DR. WERNADSKI, Delegate for Russia, stated that the Government of that empire had taken great interest in the labours and recommendations of the Congress, and had established in 1858 a Central Statistical Commission, composed of members representing the different public departments. In order to secure a solid basis for the collection of the returns, local superintendents of statistics had been appointed in the provinces. M. de Bouschen had been charged with the special duty of visiting the different countries of Europe for the purpose of studying the purely practical part of statistical science. Preparations were in active progress for the forthcoming census of Russia, to be taken on the principles adopted by the Congress. The operation of numbering the people of this vast empire was one of no ordinary difficulty, and the first step was to obtain a complete list of inhabited places, since, owing to the migrations of the peasants, and the frequent fires in the villages composed of houses of wood, these were by no means fixed. The delegate described the statistical reports which had been published, including

one by M. Troinitaki on the serfs, furnishing materials of the greatest value in carrying out the work of emancipation. Exact information had been collected with respect to the distribution of real property and the value of its produce. The War Minister had fifty-six staff officers in the provinces reporting on the military resources of the country; the reports, filling fifty or sixty volumes, were corrected periodically. Dr. Wernadski's statement, which deserves a more extended notice, abundantly proves the popularity of statistics in Russia.

M. HOFF, Delegate for the Saxon Duchies, gave a brief account of the statistical works published since the previous Congress, including the returns of the census of Saxe Meiningen, taken in 1858. This delegate, whose name is so well known in connection with the Gotha Life Insurance Company, presented some valuable papers, prepared by himself, on the operations and results of the life insurance companies in Germany.

M. G. VOET (Switzerland), announced the creation, in June last, of a Federal Statistical Bureau, under the direction of the Ministry of the Interior at Berne. Conformably with the recommendations of the Congress, the census, heretofore taken every twenty years, was to be taken in December this year, and to be repeated decennially. The delegate referred in suitable terms to the lamented deaths of the eminent Swiss statist, M. Francini and Dr. Marc d'Espine. We must all feel that the loss of such men is not confined to the country to which they belonged.

AGOR EFFENDI, Delegate for Turkey, stated that although no statistical works had been published by the Ottoman Government, important official returns existed as the result of the labours of the Statistical Bureau founded by the Sultan Suleiman. The 159 provinces had each a superintendent of statistics, with assistants by whom reports were annually prepared on the births, deaths, number of travellers, the sanitary service, transfers of property, the losses by fire and epizootics, and on other matters.—It is to be regretted that the Turkish Government, which has been twice represented at the Congress, and has evinced a strong desire to profit by its teachings, has not followed the example of other States in publishing the information, or at least the principal results, collected through the extensive agency described by the delegate.

On the third day the official delegates continued their reports. The Brazilian Minister in London, the Commander de CARVALHO MOREIRA, representing Brazil, after referring to the importance attached to social phenomena as displayed by statistics, under a Parliamentary Government like that of Brazil, described the reports made by each of the six Ministries—of the Interior, Finance, Justice, Marine, War, and Foreign Affairs—at the commencement of each

session. These reports placed before the two Chambers a complete view of the progress of the empire, as exhibited by statistical tables carefully and systematically arranged. In separating from the parent state thirty-eight years ago, Brazil had found itself in the enjoyment of all the elements of independence, but had hitherto neglected to count the numbers of the people,—nations, like individuals, the delegate well observed, being too apt to leave untold the wealth of which they have the uncontested possession,—but arrangements were now in progress for taking the first census, a work attended with unusual difficulties in the vast country extending over the basin of the Amazon. The Statistical Society founded at Rio de Janeiro, in 1854, had collected materials for the general statistics of the empire; it had branches in the provinces, and published a quarterly journal.

M. LEGOYT, Delegate for France, described the publications of the Statistical Department in Paris. He invited special attention to the financial statistics of France, remarkable alike for their complete information and perfect good faith. The budget he described as the key to all the institutions of the empire—administrative, financial, political, military, religious, and civil—in a word, the dictionary of France. The subsequent reports published by each of the public departments gave all the details of the expenditure duly verified. A precise account of the army and navy, men, horses, ships, arsenals, projectiles, arms of every description, was annually published; the elements of the armed force of the country being thus made known to the world with a degree of minuteness and fidelity unusual in other States. Amongst the most important statistical reports recently published, were volumes on the births, marriages, and deaths, 1855-57, and on the census of 1856. A report on “*L’Assistance Publique*,” comprising 1,500 hospitals and asylums, 12,000 charitable institutions (*bureaux de bienfaisance*), and many other similar establishments, for the years 1842-54, was published in 1858. M. Legoyt referred to the statistical labours of other branches of the public service, every one of which, he said, published documents affording full information concerning its operations.

DR. ENGEL, Delegate for Prussia, and formerly Director of the Statistical Bureau of Saxony, after paying a just tribute to the memory of his distinguished predecessor, M. Dieterici, whose sudden death occurred last year, described the circumstances under which unexpectedly, and without solicitation, he had been placed at the head of the Statistical Department at Berlin. The bureau was created in 1805, and for more than fifty years had zealously prosecuted its work. A Central Commission was shortly to be created. In no country in Europe, except in England, perhaps, as the demand for statistical information on the part of the

Government, the two Chambers, and the public, greater than in Prussia.

PROFESSOR SCHUBERT, the other Prussian Delegate, and a Member of the Chamber, confirmed the statement of Dr. Engel as to the appreciation of statistics by the Government and the two Chambers, adding that a constitutional system like that of Prussia demanded the most profound and extensive application of statistical science, in order that all political action might be guided or illustrated by its light.

DR. BERG, Delegate for Sweden, announced the creation of a Central Statistical Commission at Stockholm in 1858. It consisted of members of the different public departments, and had exclusive charge of the statistics of population, while it devised all the forms in use in other branches of the service. The registration of births, deaths, and marriages, was in future to be carried out on the model of the English system, and the causes of death were to be recorded on the principles approved by the Congress. The delegate noticed some facts respecting the diminution of crime, the reduced production of distilled spirits, and other results derived from the systematic collection of facts under the departments he so ably directs.—The Scandinavians are good statista, and in Sweden, where the value of statistics was early recognized, the science is still cultivated with unabated ardour.

COUNT RIPALDA (Spain), adverted to the formation, in 1856, of a Central Statistical Commission at Madrid, with branch commissions in the departments, through the agency of which a nearly exact census had been taken in 1857.

DR. JARVIS, President of the American Statistical Association, communicated a valuable statement respecting the Vital Statistics of the United States.

The delegates for the British Colonies then proceeded to make their reports, which occupied the general meeting during the remainder of the third day and during the greater part of the fourth. Of these statements it would be impossible to give even the most meagre analysis within the limits of the present paper, especially as they present rather a statistical account of the several colonies than an account of the organization of the colonial statistics. A bare mention of the names of the delegates, most of them distinguished colonists who had been Members of Council, or had filled other important posts in their respective colonies, must suffice. The Australasian Colonies were represented by eight delegates, namely, New South Wales by Sir Stuart Donaldson, Mr. E. Hamilton, and Mr. J. Macarthur; Queensland by Mr. Marsh, M.P.; Victoria by Mr. W. Westgarth; South Australia by Mr. E. Stephens; Tasmania by Mr. J. A. Youl; and New Zealand by Mr. J. E. Fitzgerald. These

gentlemen made a joint report, prepared with great care and ability. Mr. Walker, Secretary to the Government in British Guiana, reported on that colony; Mr. W. Field on the Cape Colony; Sir Charles MacCarthy, Governor of Ceylon, on that island; Mr. S. Cave, M.P., on Jamaica and Barbadoes; Mr. G. Fropier on the Mauritius; and Mr. Drummond Woolf on the Ionian Islands. In the absence of a delegate for India, Mr. Hornidge, the head of the Statistical Department in the India Office, presented an able digest of the Statistics of British India.

DR. FARR then briefly noticed the steps taken in Great Britain to give effect to the previous recommendations of the Congress. In relation to Judicial and Industrial Statistics, some advance had been made, and an extended educational inquiry was in progress under a royal commission. Attention had been called to the great defect in our finance accounts and in the estimates laid before Parliament, namely, the omission to show the quantities or values of the "stock in hand" at the beginning and end of every year. The defect had been admitted by our ablest financial officers, and Dr. Farr hoped the Congress, at its next meeting, would learn that it had been removed, as well as the reproach that Ireland was the only part of Europe without a registration of births and deaths.

MR. VALPY followed with a few observations on the changes and additions made in the publications of the Statistical Department of the Board of Trade.

Thus from the mouths of the representatives of the principal civilized nations of the world, the Congress learnt, and we learn also, the general progress of statistical inquiry, and the estimation in which this branch of knowledge is held. Countries far behind others in many respects, not only appreciate its value, but desire to be directed by its light; and abundant evidence is afforded that the seeds sown by the Congress have already yielded a goodly harvest.

At this stage of the proceedings, our valuable hon. secretary, Mr. Newmarch, having been invited to give some account of the work of this Society, said, that while its position was unofficial and perfectly independent, the Society might claim the merit of having originated the systematic cultivation of statistics in this country, the success of its efforts being proved by its present vigorous condition. He then noticed the different classes of subjects which had from time to time more especially engaged the attention of the Society, and concluded his statement by remarking that so long as its labours were useful, it would obtain the support of the intelligent public; and when it ceased to command that support by its own intrinsic merit, its mission would be at an end,—an observation pronounced by Lord Brougham, the chairman of the day, to be "correct, sensible, and judicious."

After a special report from M. Quetelet on a plan for publishing in each country, and in the same form, a general table embracing all the principal statistical facts as a basis for the comparative statistics of nations, the important business of receiving reports of the decisions arrived at in the several Sections occupied the attention of the general meeting. These reports were made, usually by different reporters, both in English and French, and the resolutions they embodied were, except in two or three instances, adopted by the Congress. It appeared to be understood that the conclusions arrived at in the Sections were the result of more deliberate discussion than could possibly take place in the general assembly, and moreover, that the decisions were occasionally to be regarded as compromises. To look for perfect unanimity amongst the representatives of so many nationalities, or even amongst any considerable number of scientific men, including of course many mere theorists, of any one nation, would be Utopian; and no wise statist will altogether reject materials which may in any way serve to strengthen the foundations of the fabric he desires to raise, when others less rough and crude cannot be obtained.

The Sections met on each day usually at 10 A.M., and sat until 1 P.M. By a judicious division of the time set apart for their deliberations, they succeeded in examining the several parts of the programme, and in two or three instances other papers submitted by individual members were discussed, and resolutions agreed to upon them. The real work—the deliberative work—of the Congress was done in the Sections; and it is a matter of regret to me that my space will not allow me even to name a few of the gentlemen whose judgment, ability, and practical acquaintance with the different subjects, contributed in so eminent a degree to the interest of the discussions, and to the adoption of sound views with reference to the statistical bearings of the several questions dealt with. Nor would these names, could they be mentioned, be restricted to those of our own countrymen, for the great assistance rendered by the foreign members of the Congress in every Section was conspicuous to all. In obtaining the co-operation of the distinguished noblemen and gentlemen who acted as Presidents of Sections, the Executive Committee were most fortunate. Who could so fitly preside over the Judicial Section as Lord Brougham? or over the Sanitary Section as the Earl of Shaftesbury? Lord Stanley was unfortunately prevented from being in London to fill the chair in the Industrial Section, but was ably represented by the Vice-President, Sir Roderick Murchison. Mr. Nassau Senior, was the efficient President of the Commercial Section; and Earl Stanhope presided over the Section charged with the consideration of the

Census and Military and Naval Statistics with perfect urbanity and admirable tact, conducting the proceedings for the most part in French, in deference to the numerous foreign delegates attending the Section. M. Quetelet, as President, with the Belgian Minister, Mr. Monckton Milnes, M.P., and Mr. James Heywood, as Vice-Presidents, conducted the discussions on the somewhat varied list of subjects treated by the Sixth Section with very satisfactory results. The Presidents received valuable aid from the Secretaries of Sections—all of them able practical men of business, to whom the Executive also are under deep obligations for their services, not only in recording the proceedings in their respective Sections, but also in preparing the shorthand writer's notes for publication in the General Report.

A concise statement of the reports brought up from the Sections may afford some idea of the nature of their labours. From the First Section, Lord Brougham and Mr. Leone Levi brought up the report on Judicial Statistics; and the Right Hon. Joseph Napier reported resolutions on the subject of the Transfers of Real Property. From the Second Section, Dr. McWilliam brought up the report on Sanitary Statistics, given in French by Dr. Berg. Sir Roderick Murchison reported the resolutions adopted by the Third Section on the Statistics of Agriculture, and of Mines and Metallurgical Industry. From the Fourth Section, Mr. Newmarch reported on the Statistics of Prices and Wages, and the Rev. Professor Rogers on the Statistics of Banks; M. Legoyt kindly presented a French version of the resolutions. Mr. Hendriks brought up from the Fifth Section the report on the Census and on the Occupations of the People, Sir R. Bromley on Naval Statistics, Mr. Hodge on Military Statistics, and Dr. Balfour on the Vital Statistics of the Army; Dr. Boudin reported in French upon the last subject, and M. Legoyt upon all the others. From the Sixth Section, Mr. Monckton Milnes, M.P., reported on the Statistics of Literature, Dr. Guy on Statistical Methods and Signs, and Mr. J. Heywood on Statistical Units; on the last subject, M. Corr Vander Maeren, of Brussels, was the reporter in French. The Second Section (Sanitary) and the Sixth were most numerous attended.

On the 21st July, after the conclusion of the reports from the Sections, Baron Cœzrnig, referring to Dr. Farr's words at Vienna, said that he had told them the truth, but not the whole truth, for they had found more than a cordial welcome—they had been received as brothers; a national interest had been felt in their proceedings, and an almost familiar reception had been accorded to them in the highest society in England. He then invited the meeting to offer the expression of its gratitude to the Prince Consort for his inaugural address, to Her Majesty's Government, and to Lord

Brougham and the other Presidents of Sections. The proposition was seconded by Dr. Wernadski, who adverted to the fact that Russia had furnished a larger contingent of foreign members than any other state. The Right Hon. W. Cowper returned thanks on the part of the Government, and expressed their great satisfaction in having had the honour of receiving the distinguished representatives of so many countries.

M. Quetelet, in a speech full of kindly sentiments, then proposed a vote of thanks to the Organization Commission and Executive Officers of the Congress, and Lord Ebrington gracefully acknowledged the compliment. M. Legoyt, in the name of the foreign delegates, expressed in eloquent language their sense of the kindness and hospitality they had experienced during their stay in England.

Before the close of the meeting, Mr. Cowper stated, amidst general applause, that he believed it would be agreeable to the members of the Congress if their next meeting were held at Berlin, a capital so renowned for its cultivation and appreciation of science. Dr. Engel and Professor Schubert, the Prussian delegates, replied that although they had not been instructed to invite the Congress, they entertained no doubt that the Prussian Government and the city of Berlin would do their utmost to give the Congress a friendly reception. The proceedings of the Fourth Session of the International Statistical Congress were then brought to a close.

I have thus briefly described the *business* of the week, but it is impossible to close this imperfect report without noticing the hospitalities and attentions which were received by our distinguished visitors. The social features of the Congress are not amongst the least efficacious of its means of promoting the cause of statistical science. At these réunions, the intercourse of men of high attainments and enlightened minds, who are thus afforded an opportunity of cultivating friendly relations, cannot fail to be advantageous to the maintenance of peace and good-will among the nations, as well as favourable to the march of social improvement. This intercourse was promoted by a pleasing succession of hospitable attentions. His Royal Highness the Prince Consort, in the absence of the Queen, received the foreign and colonial delegates at Buckingham Palace. They were invited to the Mansion House by the Lord Mayor to meet Her Majesty's Ministers; and this Society, in conjunction with the Institute of Actuaries and the Actuaries Club, entertained them at a banquet at which nearly 200 persons were present, under the able presidency of Colonel Sykes. Of the hospitality of a more private character, mention must be made of the kind receptions given to them by Viscountess Palmerston, Mrs. Milner Gibson,

Mrs. Sidney Herbert, Miss Coutts, Mr. James Heywood, and the Treasurer of St. Bartholomew's Hospital; and of their entertainment by Lord Ebrington, Miss Florence Nightingale, Mr. Henry Bohn, Mr. Valpy, Mr. Hodge, and others. A public *déjeuner* at the Crystal Palace, when Earl Stanhope occupied the chair, supported by about one hundred and fifty members, brought these social proceedings to a graceful termination.

Although the number of members attending the Congress is not a criterion of its success, the fact that the attendance was larger than at any former meeting is encouraging. Nearly six hundred members inscribed their names as actually present during some part of the proceedings, and of this number ninety were foreigners—thus maintaining the international character of the assembly. That the discussions in the Sections were as earnest, and the solutions of the different questions as satisfactory, as upon any previous occasion, was admitted on all hands; and not only those to whom the inherent difficulties of the undertaking are well known, but other competent judges have pronounced the meeting an undoubted success.

It is not too much to say that the credit of the Government and the country were involved in the result. That the Congress, like all other human institutions, was by no means free from imperfections, those entrusted with the conduct of the arrangements were ready to admit. But on the whole it unquestionably attained a large measure of success; and this result was due to various instrumentalities, and to the co-operation of many intelligent men of this and other countries.

For the cordial reception given to the Congress by Her Majesty's Government, no less than for his personal courtesy to the official delegates, the members could not but feel their obligation to Lord Palmerston, whose enlightened mind appreciated the objects of the meeting and the advantages likely to arise from its being held in this country under the auspices of the Government. In like manner the President of the Board of Trade, Mr. Milner Gibson, rendered all the assistance in his power at every stage of the proceedings. Nor should the valuable assistance rendered by Mr. Cowper, both as a member of the Government and in many other ways, be allowed to pass unnoticed. From the first, when filling the office of Vice-President of the Board of Trade, that right honourable gentleman entered warmly into the proposal that the Fourth Session of the Congress should be held in London, and it was at his instance that Her Majesty's Government were induced to send the invitation to Vienna. As Vice-President of the Organization Commission, and Chairman of the Executive Committee, he gave his personal attention to the details of the business, notwithstanding the exacting demands of his parliamentary and official duties, and to the present

time he has continued to take the most active interest in all the concerns of the Congress.

Where all were animated with the same good-will and desire to be useful, it may seem invidious to make special mention of the assistance rendered by particular delegates: but the services of Baron Czoernig, M. Quetelet, Dr. Engel, Dr. Berg, M. Visschers, and M. Legoyt, should not be passed over in silence. M. Legoyt, besides offering many excellent suggestions on the preparation of the programme (amongst others, that military and naval statistics should be included in it), undertook a great deal of hard work during the busy week of the Congress. He prepared and submitted to the general meeting able reports on *two* of the Sections, and on several occasions was the eloquent exponent of the sentiments of the foreign delegates. Nor did his valuable assistance terminate with the meeting; he has since bestowed no small amount of labour upon the revision of the portion of the General Report of the Congress in the French language—a self-imposed task which the editor, Dr. Farr, cannot fail to appreciate.

That our valued Honorary Secretary, Dr. Guy, should have displayed his accustomed energy and peculiar talent for organization upon this occasion is precisely what might have been expected. His courteous attentions, with which the foreign members especially were so charmed, and his signal services at every stage of the proceedings, were conspicuous to all; and if any proof were wanting of his zeal, might we not point to the extremely interesting memorial of the meeting now before us,* and which I rejoice to learn has become the property of the Society, so that it will continue to adorn this room. You have already heard that through his good offices, the Committee, in their hour of need, obtained the advantage of excellent accommodation at King's College, where, as Mr. Cowper truly observed in publicly thanking the authorities of that institution "Dr. Guy seemed to be almost ubiquitous, for whenever anything was wanted Dr. Guy was there, and whenever he was there, every thing went smoothly and harmoniously."

Upon the services of Mr. Valpy, as one of the General Secretaries, it is unnecessary for me to dwell. From his position at the Board of Trade, it fell to his lot to perform very responsible duties connected with the organization of the Congress; and his exertions were indefatigable to promote its efficiency and success.

As to the share in the arrangements and proceedings taken by another member of the executive, who is completely identified with the Congress—the mainspring, indeed, of the whole machine—I

* Referring to a collection of photographic portraits of the principal members of the Congress.

know that I should best consult his wishes by remaining silent. But I must be permitted to observe that if any advantages to statistical science in this country, any results beneficial to the well-being of society, any better appreciation of our work and character by our distinguished visitors, should flow from the late gathering in this metropolis, they will be due to the persevering energy, arduous labours, and admirable sagacity of our esteemed Treasurer, Dr. Farr.

With a supply of materials somewhat embarrassing from its abundance, I have condensed my report as much as possible, in order to afford time this evening for an ample discussion of the subject. The order of procedure at the late Session followed, with little variation, that adopted at the previous meetings; but it is by no means certain that greater efficiency in future might not be attained by some judicious changes in the arrangements. An opportunity for discussing the practical details now presents itself, and any useful suggestions which may be offered will doubtless be considered before the anticipated meeting at Berlin. I am sure the desire of the staunchest adherents of the Congress would be rather to provoke criticism than to discourage it. There may be a high appreciation of its design and labours, without unqualified eulogy.

By the press the notices of the Congress have been for the most part confined to a description of the proceedings. The only important exceptions of which I am aware, are articles which have appeared in the *Journal des Economistes*, Paris, from the pen of M. Legoyt, and in the *Economist*, London newspaper, under the signature "N.," reprinted in the *Statistical Journal* for September last. The critical observations in these articles are offered in a friendly spirit, and it may be useful just to mention the principal heads. M. Legoyt says, that the programme, like those of Paris and Vienna, was not prepared, in a sufficient degree, from an international point of view; that it reproduced matters already treated at previous Sessions; that the subjects embraced in it were too extensive, and that the Sections were consequently too numerous. He considers the lateness of the distribution of the programme a serious obstacle to its profitable discussion, although he frankly owns that the same fault was committed in Paris. He remarks on the adoption of the reports from the Sections almost without discussion, and suggests that the delegates should examine each evening the propositions submitted during the day, and take measures for securing their final adoption or rejection by the Congress. M. Legoyt further recommends that the publication of the General Report should be immediate, that it should include a full account of the proceedings in the Sections, and that before the close of each future meeting, a Committee of Delegates should be formed to communicate with

the different Governments and to use all its influence to procure the application of the decisions of the Congress.

The writer in the *Economist*, whose style, apart from his initial "N.," we shall have no difficulty in recognizing as that of an important officer of this Society,* while highly approving of the "sectional principle," in conjunction with a carefully prepared programme presenting to each Section, in a comprehensive form, the questions referred to it, considers that the decisions of the Sections, instead of being submitted to the general body of the members for adoption or rejection, should be final. He objects to the reception of the reports of the delegates on the progress of statistical inquiry in their respective countries, as wasting time; and I am sorry for this, because I look upon these brief statements made by the delegates in the general assembly before the reports from the Sections are ready, as instructive and valuable in many respects, and I have occupied the time of the Society in noticing them in the earlier part of this paper. Another defect, in his opinion, "is the "offensive frequency of mutual compliments." Lastly, he points out the grave disadvantages resulting from the organization being practically dissolved during the intervals between the meetings of the Congress, and proposes the establishment of a permanent Central Committee at Brussels or elsewhere.

I do not say that these criticisms are in every respect unjust; they deserve consideration; but I confidently believe that in its results the Fourth Session of the International Statistical Congress will fulfil the aspiration of His Royal Highness the President, expressed in these words:—"Happy and proud indeed should I feel if this noble gathering should be enabled to lay the "solid foundation of an edifice, necessary slow of construction, and "requiring for generations to come laborious and persevering exertion; intended as it is for the promotion of human happiness by "leading to the discovery of those eternal laws upon which that "universal happiness is dependent."

* During the discussion which followed the reading of this paper, Mr. Newmarch avowed himself as the writer of the articles referred to—(J. T. H.)

**ON EDUCATIONAL HELP from GOVERNMENT for the DESTITUTE and
NEGLECTED CHILDREN of GREAT BRITAIN. By MISS CARPENTER.**

[Read before Section (F), of the British Association for the Advancement of Science,
at Oxford, 2nd July, 1860.]

THE Educational Movement is but of comparatively recent date in our country, though no subject now engrosses a larger share of public attention; on none, however, is there a greater diversity of opinion, or more need of reverting to general principles.

Forty years ago great efforts were necessary to prove the importance, now so universally recognized, of extending the inestimable boon of mental culture, and the acquirement of useful knowledge, to the children of the labouring population of England, and of placing a sound education within their reach. At present, unwearied efforts are made throughout the kingdom to promote this most important object, by Christian effort, by enlightened zeal, and by the Government of our country; and yet the very success they have had, has been the means of leaving in greater darkness one portion of the population—the “Neglected and Destitute Children” of Great Britain.

But though “Popular Education” is somewhat a new term, the old endowed Charity Schools prove that the importance of giving education to the very poorest, received the attention even of royalty, as long ago as our sixth Edward; and though the schools founded by him, and others of a similar kind, have been for some time employed by a much higher class than those for whom they were *originally* intended, yet the record remains that the effort was *formerly* made to teach the very lowest of the population—and to educate them.

The attempt to teach those who are too deeply sunk in ignorance, and too little cultivated even to *desire* instruction, will always originate with persons who are actuated by Christian principle and benevolence, and must always be adapted to the peculiar wants of the individuals to be operated upon. Thus Raikes led the way with the Sunday Schools (commenced in 1781), which at first were merely collections of the wild, untaught children of the streets. Near the commencement of the present century, Bell and Lancaster established their schools for the *gratuitous* admission of the very poorest classes. These efforts to influence the very lowest of the population, gradually had the effect of raising the children who were the subjects of them, and the schools rose also, until the very class of children for whom they were originally intended were left behind.

The Sunday Schools once contained the very sweepings of the streets—the children for whose souls none had before seemed to care; the first Lancasterian and Bell Schools gathered in and gave a gratuitous education to any ragged, shoeless children who would come. But the Sunday Schools are now filled with well-dressed children, who would despise such clothing as it was formerly esteemed a privilege to obtain, to appear tolerably neat on the Sabbath; the four thousand boys and girls whose voices filled the Crystal Palace a few weeks since, would be no fitting companions for the wretched outcasts who frequent the back streets and alleys of crowded cities. The excellent National and British Schools, which have risen on the foundations laid by their humble predecessors, and which often afford an education and discipline superior to the schools for the middle classes, are no longer adapted to the children for whom they were originally designed, nor would the teachers be willing to admit children who are evidently unfit associates for their own scholars. As wide a gulf exists as formerly between the *regular* working classes and that large mass below them who may not be either *absolutely criminal or paupers*, but whose means are precarious, whose mode of living irregular, and whose children may be properly designated “destitute and neglected.”

The existence of this large class of uneducated children was forcibly laid before the public at the Educational Conference of June, 1857, by their President, H.R.H. the Prince Consort. “We are told,” he says, “that the total population of England and Wales of children between the ages of 3 and 15 being estimated at 4,908,690, only 2,046,848 attend school at all, whilst 2,861,848 receive no instruction whatever.” Again, he continues, “carefully collected statistics reveal to us the fact that, while almost 600,000 children between 3 and 15 are absent from school, but known to be employed, no less than 2,200,000 are not at school, whose absence cannot be traced to any ascertained employment or other legitimate cause.”

The results of this neglected and uneducated condition are shown in the *pauperism* and *crime* of our country. The Inspectors of Union Workhouses can bear most forcible and painful testimony to the state of degradation and ignorance of most of the children who are brought there, and those who have much practical acquaintance with such institutions know well how many of the inmates have there been maintained from childhood by the country, and then have even reared families to become hereditary paupers. Those of Her Majesty’s Inspectors know well the existence of a large class of the juvenile population who are untouched by the ordinary educational establishments, and who ought for the benefit of society to be educated. We will not quote the statistics of gaols to show

that the criminal portion of the community generally springs from this uneducated mass of the people, because the existing want of power to prove previous convictions, renders it impossible to obtain any reliable statistics of the number of criminals who have never had any available education, previous instruction in gaols being generally concealed by prisoners; but the *fact* is appalling that in only nine months, ending September, 1856, 19,336 persons were apprehended in the town of Liverpool, and that of these only 3 per cent. could read and write well enough for any useful purpose; it is also a matter of painful significance that returns from all the Reformatory Schools in England, made at that Conference, proved that of all the children committed to them, more than half were in a state of gross ignorance on admission, and that an average of not more than one-fourth of the children could read the Testament, while in some schools not one-fifteenth had sufficient knowledge to do so.

The discussions of that Educational Conference were not directed to the condition of the millions totally uneducated, but to the "early age at which children are taken from school," and the "insufficient attendance of the children of the working classes." But the concluding remarks of the royal President have a higher and deeper significance. "It is man's duty," said he, "to fulfil his mission to the utmost of his power; *but it is our duty,—the duty of those whom Providence has removed from this awful struggle and placed beyond this fearful danger,—manfully, unceasingly, and untiringly to aid, by advice, assistance, and example, the great bulk of the people, who without such aid, must almost inevitably succumb to the difficulty of their task.*"*

Now if this "great bulk of the people" were educated, if the millions who must without help sink to a grovelling condition, are "untiringly, unceasingly," aided to rise, especially by *the proper training of their children*, we may feel assured, as expressed by Lord John Russell at Sheffield, in 1857, that pauperism and crime would greatly decrease. "*I believe,*" said he, "*that if these wants are supplied, although we can never hope in our most sanguine expectations that temptations will not divert many from an honest and religious course, yet that the number of those who are sent to prison, who not having originally vicious inclinations, have been perverted by bad example and the circumstances of their position, —that the number of those who are criminally punished will very sensibly decrease, and society be a great gainer thereby.*"

The Government of our country has long admitted the importance of assisting in popular Education by the annual Parliamentary Grant

* "Report of the Educational Conference," p. 371.

for the purpose. Its advantages are restricted only to those who support themselves by manual labour, and the admirable condition of many of the schools aided by the Council on Education, together with the general stimulus given to the education of the working classes throughout the kingdom, bear witness to the success of its operations. But this very rise of the intellectual status, only makes these schools more inapplicable to the children who want *also civilizing, moral training, and instruction in the means of gaining an honest livelihood*. As already shown, voluntary benevolence and Christian zeal must *lead the way*, go to the highways and bye-ways of life, search out the neglected and forgotten, draw them with the cords of a man, and compel them to come in ragged, dirty, and miserable as they are, believing that they have a noble mission to be performed on earth, and knowing that they too have immortal souls, and that it is not the will of our Father in Heaven that one of these little ones should perish. By the light of Christianity *only*, by the philanthropic zeal kindled by it, have these dark places been penetrated, which exist in our land. The Ragged and Industrial School movement has done this work. It has reached the very lowest of the population, and wherever it has been efficiently carried out and well supported, has done its work by acting on the part of the population which is untouched by ordinary Pay Schools, and greatly diminishing pauperism and crime. The truth of the principle of these schools has been now absolutely demonstrated. In Aberdeen, where the system was most efficiently carried out by Sheriff Watson, the results were as follows:—In 1841 there were *apprehended* in the county of Aberdeen 328 juvenile vagrants, and *committed to prison* 61 children under the age of 12. The number of vagrant children did not diminish until, on the 19th of May, 1845, 75, of whom only four could read, were, by order of the magistrates, collected by the police and brought to the Industrial School, with the admonition that they might return or not as they pleased, but that begging would not be tolerated. There was a sudden diminution of juvenile vagrancy, until in 1849 and 1850 only three were apprehended, and the Rural Police Committee, in their report for 1846, speak of the *almost complete disappearance* of juvenile vagrants from the county; the gaol statistics show that juvenile criminals under 12 have been reduced from 63 in 1841 to 16 in 1849, and the County Prison Board report, “we would, therefore, recommend the establishment “of such Schools and *their support at the public expense*.” A similar diminution of juvenile crime followed the establishment of good Industrial Feeding Schools in Edinburgh and elsewhere. Now in those schools, and those contemplated by the Industrial Schools Act in 1857, the children are kept the whole day, fed, and generally clothed, in some cases lodged also; they are really *educated*, besides

receiving a fair amount of useful school teaching, and being taught industrial work. In the simple Ragged School, the children live at home, but at the school receive gratuitous instruction and industrial training. In both, the ragged and miserable condition of the child is no bar to his admission, and hence the name "Ragged" is retained as a distinctive one. But, as stated by the late Joseph Fletcher, in his official report to the Committee of Council on Education in 1848-9, "it is a grievous error to suppose that because the children are ragged the institution should be ragged also. To bring such children together in numbers on this principle, is to do a direct and serious injury to society. The 'sympathy of numbers,' if there be not power to direct it to what is good, does but fortify the wild. It is no mean power which is required to deal with such materials." Ragged Schools then to be good must have a well qualified, and therefore an expensive staff, no school pence aiding in its support, and there must be various appliances not needed in ordinary schools—such as washing apparatus, a playground, &c., together with many connected arrangements to promote economy and industry, involving much philanthropic labour. But the results have been abundantly successful. The London Ragged School Union Report states that in one year out of 13,979 scholars, 1,260 were put out into situations, 460 presented themselves for prizes for having been a whole year with good characters in their situations; and there were no fewer than 10,117 depositors in the Penny Bank, who have paid in 3,439*l.*,—these all being children who would otherwise have received no education. In London it may be difficult absolutely to trace the diminution of juvenile crime to the Ragged Schools, but Mr. M. D. Hill, in his recent work on "The Repression of Crime," states that while in the Schools of the Bristol Ragged School Union, there were twenty-six imprisonments of children attending them in 1849, during the last five years there have been together only three. A corresponding decrease of juvenile crime is shown by police reports in 1847, the year of the commencement of Ragged Schools in Bristol, and the five years preceding the annual average of juvenile commitments in the city had been about 200, in one year 241, but it gradually sank in subsequent years to 80, and remains less than half in number to what it was previously. This great diminution is attributed by the authorities to the reformatory action which has been exercised by these and similar schools. These are brief illustrations of the effect of this movement. It must then be evident that it is for the benefit of society that these schools should be *effectively* carried on, and it is also certain that though the London Ragged Schools and some others prefer remaining independent of Government aid and inspection, and carrying on their schools by voluntary effort only, sustained as it is there by

illustrious and enlightened persons, yet in most large towns they are either in a low condition from want of teaching power, or are only sustained in an efficient state with extreme difficulty by a few zealous persons. Neither the first condition nor the last can permanently effect the desired end. They require efficient help from the Educational Parliamentary Grant.

The Minutes of the Committee of Council on Education are framed with a view to the ordinary National and British Schools, and for such they provide an admirable teaching power. The last report, just issued, states that during the year 1859 there were inspected 9,555 Day Schools. In these there were 888,181 children under 6,222 Certified Teachers and 14,176 Pupil Teachers, who performed the duties of Assistant Teachers. There was paid to these by the Council, for augmentation of salaries, 86,328*l.*; to Assistants 6,224*l.*; and to Pupil Teachers 252,550*l.*, *i.e.* above 345,000*l.* to secure a good teaching power to these schools; 750*l.* are also given to encourage the fine arts. But at present there is **NO TEACHING POWER** given to the Industrial or to the Ragged Schools, except the augmentation in case of a teacher being certified; and from what has been said, it will be evident that an intellectual test can no more prove that a master is qualified for such a school, than it can give him the zeal and devotion necessary to carry it on. The Minute for Ragged and Industrial Schools, aids in providing tools and material for industrial teaching, and in the case of sentenced children, allows 3*s.* a week; but does *not give educational aid to the neglected and destitute children of Great Britain.*

The Educational Parliamentary Grant was made before any special attention was directed to the class of children whom we are considering, and indeed before the improvement of the present Sunday and Day Schools had left so far behind the very lowest, it was made simply for "Public Education in Great Britain," and the object of the Grant is stated to be to promote the education of children belonging to the classes who support themselves by manual labour, a definition of course including *all classes* of the population below what are usually termed the middle classes, except paupers and criminals. But because children are unfortunately thrown on the State for support, they are not less entitled to the blessings of education; and many of the Workhouse Schools being notoriously bad, in 1849, at Sir Robert Peel's advice, 30,000*l.* were voted in the estimates, and have been annually granted since, for the payment of teachers in Workhouse or District Union Schools. The distribution of it was left to the direction of the Committee of Council on Education, who appointed a low test for a certified teacher, justly deeming that there were other qualifications needed than intellectual ones in such a position; these teachers are liberally paid, 60*l.* per

annum being given to a master beside board and lodging, and 48*l.* to a mistress, with the highest certificate.

In 1851 the condition of destitute, uneducated children was taken up by the Legislature, and a Select Committee of the House of Commons was appointed to inquire into the present treatment of criminal and destitute children, &c., and to report the minutes of evidence taken before them to the House. The Committee sat through the Sessions of 1852 and 1853, and reported to the House of Commons in June, 1853. Its labours resulted in the establishment of Reformatories, as recommended in that report, to grapple with the juvenile crime of the country; these were mainly supported by liberal aid from Government, (7*s.* a-week for each child committed).

The Committee report finally, that the "Ragged Schools," "especially the Ragged Industrial Feeding Schools, at present supported "by voluntary subscriptions . . . have produced beneficial effects "on the children of the most *destitute classes* of society inhabiting "large towns; that voluntary contributions *have been found in-adequate* to supply the number of such schools at present required "in the metropolis and other cities and towns; and therefore *they should not be excluded* from the aid of the National Grant, under "the distribution of the Committee of Council for Education,— "*great care being necessary in framing the minutes applicable to this description of schools, so as not to fetter private exertions, or to exclude men eminently qualified to fill the laborious and difficult position of teachers, by the requirement of too high an educational certificate.*"

This recommendation has not yet been carried out. When it is so we may hope and confidently anticipate, from past experience, a very great and lasting improvement in the juvenile population of our country. Under judicious inspection, and with efficient aid, the Workhouse Schools which were formerly a disgrace to the nation, have become models of excellent training, perhaps nowhere surpassed, wherever guardians have themselves been willing to avail themselves of the Act for establishing *District Industrial Workhouse Schools*. Such may all the Ragged and Industrial Schools become with similar help.

The subject has not yet been brought before the public or before Parliament. When it is understood, it cannot be doubted that justice will be done; that those whose voluntary efforts in the cause of humanity are the greatest will not be left unhelped, that the class of the population who most require instruction will not be left uneducated. The spirit of the benevolent founders of the ancient endowed schools,—of the Raikes, the Bells, the Lancasters,—all of whom desired to carry instruction to the *very lowest in the king-*

dom, is not departed from our nation. In our own times a John Pounds has arisen, and in his humble sphere struck out a new idea, and worked out a new mode of gathering the outcasts together, and making them useful members of the community. The small seed he planted in faith and love, has grown into a goodly tree. The Shaftesburys, the Watsons, the Guthries, and unnumbered bands of Christian labourers have patiently and zealously applied themselves to the work, and discovered how the neglected and destitute may be restored to society; but the field is much too large for voluntary benevolence to occupy fully, or to cultivate effectually. We trust that as for the Criminal and the Pauper Children, the Government of our country will avail itself of the proffered voluntary effort, and will provide efficient help for the children who are "Neglected and Destitute."

Bristol, June 27, 1860.

MEMORANDUM relating to the SYSTEMS of TAXATION at present in force in the UNITED KINGDOM, with especial reference to which DIRECT and INDIRECT MODES of RAISING REVENUE are employed, and the practical effects thence arising. By WILLIAM NEWMARCH, one of the Honorary Secretaries of the Statistical Society, and Editor of its Journal.

[Prepared by request for the Fourth Annual Meeting of the National Association for the promotion of Social Science, to be held at Glasgow, September, 1860.]

(I.)—*As regards the leading Facts.*

1. The population of the *United Kingdom* may be assumed to be thirty millions of persons.

2. It is shown by Schedule X annexed, that in 1858 the net Imperial Revenue was 62·2 millions sterling, and the local taxes a further amount of 18 millions sterling; altogether, 80 millions sterling.

3. It is also there shown that 24·6 millions (*or 30·0 per cent.* of the 80 millions) were in 1858 raised by *direct* assessments, equal to 6 per cent. per annum on incomes (and in 1860 equal to 8 per cent. on incomes).

4. It is also shown, that 32·1 millions (*or 51·7 per cent.*) of the 62·2 millions (imperial) are raised by indirect taxes, which in no sense can be justly said to interfere with industry, enterprise, or skill.

5. It is also shown that a further amount (*d*) of 13·6 millions (*or 21·9 per cent.*) of the 62·2 millions (imperial) is raised by *small* indirect taxes on articles of general comfort.

6. Out of the 62·2 millions (imperial) it is shown in Schedule X that not more than 9·9 millions can be described as taxes directly interfering with industry, enterprise, or skill.

7. Of this amount of 9·9 millions the sum of 1·5 millions represents the duties on Paper and Hops, already condemned by Parliament, and only awaiting the first surplus revenue to be abolished; and the same statement applies to the 0·9 millions, representing at least *half* the present duty of 3s. per cent. on fire insurances. These items together amount to 2·4 millions (*or 24·3 per cent.*) of the 9·9 millions now in question.

Note.—At the Meeting of the National Association for the Promotion of Social Science, held at Bradford, in September, 1859, it was referred to a Sub-Committee to make arrangements for a formal discussion of the subject of Taxation at the meeting to be held in September, 1860. The following Memorandum has arisen out of this proceeding, but is not to be held as being in any sense an official paper issued by the Sub-Committee.

8. The remainder of that sum, viz., 7·5 millions (equal to 12·0 *per cent.* on the 62·2 millions imperial revenue), includes 4·8 millions produced by numerous duties of assessed taxes and licences rather troublesome than oppressive, and 2·7 millions *half* the present malt tax of 3s. per bushel, a tax which it is desirable to have reduced but which even at its present rate is not markedly mischievous.

9. It appears that in the New England States, where direct taxation is wholly employed, that in the first place there is a poll tax of say 6s. on each male adult; and, in the second place, that the total direct assessments do not amount to more than say 1 *per cent.* on incomes; a rate of assessment so small as to render immaterial great inequalities in the modes of levy.

10. It appears also (see statement at foot of X) that at present in many large towns and districts in the United Kingdom, a limit has long since been reached *beyond which* the levy of direct local taxes cannot be carried.

11. It also appears that in this country, where the direct assessments amount to a large percentage on incomes, the state of the law relating to these assessments becomes necessarily and inevitably, in consequence of the refinements and specialties to be observed, so diffuse, complex, and uncertain, as to amount in itself to a great public evil.

12. As regards the 13·6 millions of indirect taxes (customs) on general comforts—tea, sugar, coffee, &c., it is to be remembered, that during the last twenty years the *percentage* of each of these duties has been progressively reduced from very high rates, to rates which under an ordinary state of things are intended to be, and are (by comparison and actually), very small. Sugar, for example, which used to pay 63s. per cwt., was reduced to a peace rate of 10s. per cwt., or say 1*d.* per pound; the retail price of the article having also fallen from say 8*d.* to 4*d.* per pound.

(II.)—*As regards Modes of Taxation.*

13. The four cardinal principles of taxation enforced by Adam Smith may be stated shortly, as follows:—

(a.) I. That the persons should contribute in proportion to their respective abilities;

II. That the assessments should be certain in amount, and the liabilities thereto clearly defined;

III. That all taxes should be levied at the time and in the manner most convenient to the payer;

IV. And should take out and keep out of the pocket of the payer the smallest possible sum.

14. Various schemes of taxation have been proposed from time to time. Of these the three principal may be said to be,—

- (b.) That all taxes should be arranged and levied on the principle of assessing every person in proportion to the amount of *protection* to person and property he receives from the State.
- (c.) That all taxes should be arranged and levied on the principle of taking the largest proportionate payments from those persons who have the largest incomes; and therefore that the rates of annual assessment should be *progressive*, according to the amount of the annual income—being, for example, say 1 *per cent.* upon incomes of 100*l.* per annum; and say 5 *per cent.* on incomes of 1,000*l.* per annum.
- (d.) That all taxes should be arranged and levied on the principle of exempting labour and skill, and placing the burden wholly upon *realized property*—for example, the profits and the stock in trade of a merchant or dealer would be passed over, but the realized property of a fundholder or landlord would be assessed.

15. As concerns these theories there are the following among other objections and difficulties, viz. :—

With reference to (b.)—the suggested principle of proportioning taxes to *protection*—

(1.) The first result of such a principle must be a *poll tax*, on the ground that at least each man's person is protected by the State.

(2.) Provisions must be made for dealing practically and arithmetically with such cases as the following, viz., (A) a man who earns 1,000*l.* a-year, spends it, and accumulates nothing; (B) a man who receives 1,000*l.* a-year from various sources, who spends only 100*l.* and saves 900*l.*; (C) a man who consumes at the rate of 1,000*l.* a-year out of a capital of 10,000*l.* previously acquired.

In dealing with these three comparatively simple cases, a practical rule capable of being dealt with by the rude machinery of the tax-gatherer must be framed, stating *accurately* the percentage of the protection tax.

If, for example, the protection be estimated according to what a man *spends*, then, in the first year, B will pay one-tenth as much as A, and will receive *ten* times more protection; and in the second year he will still pay only one-tenth as much as A, and will receive *twenty* times as much protection. On the other hand, C will pay each year ten times as much as B, and in ten years will be a beggar, while B will have amassed a large fortune.

If the protection be estimated according to the amount of *realized property* possessed, then A will have a house and possess premises ten times larger than B, but will pay no tax whatever; while B will pay ten times more than A because he adds nine times more to the accumulated wealth of the country, C will be worse off than A, inasmuch as in ten years, and with the same expenditure,

his income would wholly cease ; but during those ten years, while A would pay no taxes whatever, C would have been mulct of a large part of his temporary and expiring revenue.

16. The truth seems to be, that while the State must necessarily rest its just claim to impose taxes on the ground of the general protection it affords to each and all its subjects, it is impossible, *in practice*, to assess upon each person an amount of taxes corresponding *exactly* to the amount of protection he receives.

17. With reference to (c) the suggested principle of—

Progressive assessments, or requiring the largest proportionate payments from those persons who have the largest incomes,

some of the difficulties are these :—

(1.) There is the same injustice in forcibly taking the rich man's means in order to lesson, *pro tanto*, the poor man's share of a reasonable burden of taxes, as there would be in forcibly compelling the poor man's labour in order to increase the rich man's profits. In other words, the suggested principle amounts simply to confiscation.

(2.) The wealth or poverty of individuals is and must be determined by circumstances and accidents with which the State cannot and ought not to interfere by any schemes of artificial compensation or re-adjustment.

(3.) To tax the means of a rich man at a higher rate than the means of a poor man, would be in the most direct form a penalty on prudence and accumulation ; and therefore a hindrance of the most formidable nature to the progress of the community in wealth, comfort, and intelligence.

18. With reference to (d) the suggested principle of—

Placing the burden of taxes wholly upon *realized property*, in order to exempt labour and skill,

some of the difficulties are these .—

(1.) Even in this country, rich as it is, a revenue of 80 *millions per annum* could not be raised from the yearly income yielded by realized property except by a percentage of assessment so heavy, that in the immensely preponderating mass of the small incomes, it would amount to oppression of the direct kind.

(2.) On no ground of justice can it be said, that in this country the recipients of income from realized property are bound to pay all the taxes required by the State ; and certainly if such a change could be seriously contemplated, notice equal at least to half the length of a generation should be given. The present amount of realized property has, in the main, been fairly earned by the industry and skill of the present or former possessors, and earned under the expectation that no undue amount of taxation would be placed upon property of that description.

(3.) The suggestion of taxing realized property solely, in order to exempt labour and skill, involves the same principle of confiscation which is included in the preceding suggestion of a rate of assessment increasing with the income of the payer of the tax.

(4.) It also involves the same evil of operating as a penalty upon prudence and accumulation:—of granting a bonus to expenditure:—and inflicting a fine on savings.

19. It seems, therefore, that neither of these three hypotheses (*e, f, g*.) will afford any solid assistance; and that on grounds of substantial justice and real practicability we must take as our guides the four rules (*a*) laid down by Adam Smith; these rules amounting in substance to this general doctrine, viz:—

That the total taxes of a State must be kept as small in amount as possible, and that amount must be contributed by *all persons* according to their different abilities, and in the modes most convenient to the payers.

And it may be added, that in an old country like this, where 80 millions of revenue have to be raised from 30 millions of people, an immense majority of whom depend upon wages and profits of trade:—and where, further, in consequence of the almost infinite variety of sources of income—land, houses, public funds, professions, joint-stock companies, commerce, manufactures, mines, ships, inventions, retail trades, &c.,—the “respective abilities” to contribute to taxation are of the most varied description—it would be wholly puerile and impossible to attempt to raise so vast a revenue in accordance with any single rules or by the aid of any single plan.

The circumstances of the people to be taxed, the enormous magnitude of the sum to be raised, and the free genius of the laws to be administered, all compel the employment of principles and machinery distinguished in all their parts by diversity, pliability, and plainness.

(III.) *As regards Practical Results in this Country.*

The following propositions are submitted as arising fairly from the facts and statements herein adduced, viz:—

20. That a very large part of the present imperial revenue of the United Kingdom—a part certainly exceeding one-half—is raised by taxes not open to serious objection on any ground, abstract or practical.

21. That in an old country in which 80 millions sterling of (total) revenue have to be raised from 30 millions of people,—the great mass of whom subsist on wages—*indirect taxation* to a large extent is inevitable, and may be so adjusted as to avoid almost entirely the evils of injustice and oppressiveness.

22. That combining the imperial and local taxation at present raised, the *direct* virtual assessments on income already (in 1860)

amount to 8 *per cent. per annum*, and that practically this mode of levy does not admit of more than trifling extension.

23. That to supersede any large part of the present indirect taxes, in the form of moderate customs' duties on articles of general consumption, would render necessary a heavy poll tax and a direct assessment on some capitalised value of wages and small incomes; both of them forms of taxation in a high degree impossible in this country.

24. That as a general result, it may be affirmed with no small confidence, that the present system of taxation of the United Kingdom is not fairly open to the sweeping censures, and certainly is not susceptible of the extreme and subversive changes which in some quarters have been lately recommended.

SCHEDULE X.—NET IMPERIAL REVENUE, UNITED KINGDOM, 1858.

(I.)—*Taxes below the Line of Interference with Industry, Enterprise, or Skill.*

FIRST (a.)—*Taxes on Extravagance.*

Class.	Net Rev. Mina.	Per cent. of Total Imperial Net Revenue.
	£	
Customs—Spirits	2.30	
Tobacco	5.90	
Wine	1.80	
	10.00	
Excise — Spirits	9.00	
Malt (<i>half</i>)	2.70	
	11.70	
	21.70	= 36.5 p. ct.

SECOND (b.)—*Taxes wholly innocuous.*

Customs—Corn (1s.) Duty	0.60	
Excise — Railway Duty	0.40	
Post Office Net Revenue	1.30	
	2.80	
	2.30	= 3.8 p. ct.

THIRD (c.)—*Taxes on Transfers of Property.*

Stamp Duties on Deeds, Probates, Lega- cies, Bills, Notes, and Land Tax	7.20	
Duty on Fire Insurances (<i>half</i>)	0.90	
	8.10	
	8.10	= 11.4 p. ct.
	32.10	= 51.7 p. ct.
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(II).—*Taxes more or less Interfering with Industry, Enterprise, or Skill.*FOURTH (d).—*Moderate Taxes on General Comforts.*

Class.	Net Rev. Mins. £	Per cent. of Total Imperial Net Revenue.
Customs—Tea	5.30	
Sugar	6.00	
Coffee .....	.50	
Other Articles	1.80	
	— 13.60	
		— 13.60 = 21.9 p. ct.

FIFTH (e).—*Direct Taxes on Income.*

Income Tax 6d. per £ = 2½ per cent per annum	6.60	
	— 6.60	
		6.60 = 10.5 p. ct.
		20.20 = 32.3 p. ct.

SIXTH (f).—*Taxes on Employment and Expenditure.*

Assessed Taxes	3.20	
Stamps—Licences .....	.20	
Excise — do.	1.40	
	— 4.80	

SEVENTH (g).—*Taxes directly interfering with Trade.*

Excise—Paper Duties	1.10	
Hop Duties .....	.40	
	— 1.50	

EIGHTH (h).—*Further similar Taxes.*

Half Malt Tax (see a)	2.70	
„ Fire Duty (see c) .....	.90	
	— 3.60	
		9.90 = 16.0 p. ct.
Total (II) Category	30.10	48.3 p. ct.
„ (I) „	32.10	51.7 p. ct.
Total Net U. K. Impl. Revenue, 1858	62.20	100

(1.) To this total must be added the LOCAL TAXATION of the United Kingdom, amounting to say 18,000,000*l.* per annum.

(2.) These local taxes may, for the purposes of general argument, be safely described as taxes on income and property. If we assume that house rent may be represented, in general terms, as equal to say *one-sixth* of the income of the occupier, and that the local taxes are equal to say twenty per cent. per annum on the rent, then 100*l.* per annum *rent* pays 20*l.* per annum local taxes; and that 20*l.* is equal to 3½ per cent. per annum on the assumed *income* (of 600*l.*) of the occupier, —and adding the income tax of 2½ per cent. per annum (as above e.) the total

direct taxes in 1858 would be 6 per cent. per annum on income. In 1860 the income tax is $4\frac{1}{2}$ per cent. per annum, and therefore, on the basis assumed, the direct taxation will be 8 per cent. per annum.

(3.) In Massachusetts, where direct taxation is exclusively employed, the whole amount of State and local taxes *does not amount to more than one per cent. per annum on incomes.* (See a paper by Dr. Jarvis, Boston, U.S., in *Statistical Journal*, September, 1860). In Massachusetts, and most of the States of the American Union, a *poll tax* of one and a-half dollars (6s.) a head, on males of 16 and above, is a fundamental part of the fiscal scheme.

(4.) It is stated in the Circular Letter of 18th April, 1859, by Mr. Thwaites, the chairman of the Metropolitan Board of Works, that in the metropolis it has become, in effect, "altogether impracticable to raise by means of direct rates" any further sums for carrying out even the most urgent public works,—and he gives as instances of actual excessive pressure of local rates, in the year 1857—Chelsea, where the rate was 6s. 11d. per pound—Shoreditch, 6s. 8d.—Bermondsey, 6s. 6d.—Horseleydown, 7s. 10d.—and several others.

(5.) As regards the extreme difficulty and complexity which attends the levy and collection of onerous *direct* taxes, reference may be made to Mr. Coode's well-known standard Report of 1844 on Local Taxation, in the *index* of which no less than *twenty-five* pages of small print are occupied with outline headings under the three subjects of "Property in respect of which the rate is imposed"—"Persons liable to the rate"—and "Valuation of rateable property."

(6.) The following, we believe, are the only articles on which Customs' duties are now payable; the last marked *s* and *s* being those on which the duties are regulated by the excise or stamp duties on like articles of home produce or manufacture:—

Arrowroot, biscuit, pearled barley, macaroni, sago, and other farinaceous articles, $4\frac{1}{2}$ d. per cwt.

Books, prints, and drawings, per cwt. 16s.; under international copyright, 15s.

Cocoa, 1d. per lb.; husks, $\frac{1}{2}$ d.; paste and chocolate, 2d.

Coffee, raw, 3d.; roasted, 4d. per lb.

Corks, ready made, 3d. per lb., till March 31, 1862.

Corn, 1s. per quarter; meal and flour, $4\frac{1}{2}$ d. per cwt.

Currants, figs, prunes, raisins, 7s. per cwt.

Plums, French or dried, 15s. per cwt.

Cherries (dried), confectionary, preserved fruits, ginger, &c., 2d. per lb., till

July 1, 1861.

Hats or bonnets of chip, straw, horsehair, &c., 1s. 3d. per lb., till March 31, 1861.

Pepper, 6d. per lb.

Powder, hair and perfumed, $4\frac{1}{2}$ d. per cwt.

Sugar, 12s. 8d. to 18s. 4d.; cane juice, 10s. 4d.; molasses; 5s. per cwt., till

July 1, 1861.

Tea, 1s. 6d. per lb., till July 1, 1861.

Tobacco, 3s. per lb.; manufactured or cigars, 9s.; snuff, 6s.

Timber, 1s., sawn wood 2s. the load; furniture wood, 1s. the ton.

Wine, 8s. per gal., till Dec. 31., 1860; afterwards, 1s. to 2s. 11d., according to strength.

s. Ale and beer, 20s. the barrel.

s. Hops, 20s. per cwt., till January 1, 1862; afterwards, 15s.

s. Malt, 26s. per quarter.

s. Chicory, or other vegetable matter for like use, 6s. per cwt.

s. Paper, 16s. per cwt.; paper hangings, 14s.

s. Spirits, foreign, 10s. 5d.; colonial, 10s. 2d. per gal.

s. Vinegar, 3d. per gal.

s. Plate—gold, 17s. per oz.; silver, 1s. 6d. per oz.

s. Cards, playing, 15s. per dozen packs.

s. Dice, 21s. per pair.

The EFFECT of the GOLD SUPPLIES on the FOREIGN EXCHANGES between the UNITED KINGDOM and FOREIGN COUNTRIES, and on the PRICE of SILVER. By FRANCIS JOURDAN.

[Read before the Statistical Society of London, 19th February, 1861.]

IN treating statistically the subject of the Foreign Exchanges, it has generally been considered sufficient to furnish abstracts from the quotations published by those who are engaged in monetary transactions of this nature; but such quotations, though adapted to mercantile operations dependent merely upon arbitrations or international monetary values existing at any one period of time, are inefficient when an essential object, as with all statistical inquiry, is to lay down accurately periodic fluctuations. In bringing before the Society the modifications essential to produce efficient tables of the fluctuations in the foreign exchanges, no claim can be laid to originality, as it will be shown that nearly fifty years ago the late Mr. Ricardo called attention to the necessity of making similar corrections before drawing conclusions from the apparent fluctuations of different periods.

The impossibility of deriving correct results from the simple collection of facts in their ordinarily accessible form, and the consequent necessity of submitting these facts to a corrective process, rendering the inquiry somewhat complicated, it will be as well to explain the causes which give rise to this peculiarity, before laying down the plan here adopted for producing exchange tables in a correct form.

The technical term "rate of exchange," expresses the amount of coin receivable in the money of one country against a *fixed* amount of coin in another country: thus the rate of exchange here upon Paris is at one period 25 francs 10 centimes, at another 25 francs 20 centimes:—meaning that at one time 25·10 at another 25·20 are receivable against 1*l.* of our money. And the currency of France being now virtually based upon gold, the difference between 25·10 and 25·20 is an exact numerical expression of the alteration which has occurred in the exchangeable value of the money of each country. In those cases, however, where the currencies are different, one country adopting *silver* the other *gold* as a legal tender, the *recorded* variations in the rates cease to express the *real* exchange fluctuations:—for it is apparent that if a rise or fall has taken place in the price of *silver*, any fluctuation that has occurred may be partly attributable to this cause:—for instance, if the price of silver advanced

from 5s. to 5s. 1d. per oz., the monies of those countries having a silver currency would become relatively more valuable than ours, and as the rate of exchange expresses the quantity of that silver money exchangeable for our pound sterling, the rate would naturally decline; in other words, supposing for the moment this rise in the price of silver to be the only active influence, the rate of exchange would fall inversely as 5s. : 5s. 1d. indicating that so much less foreign coin of this enhanced value is equivalent to our pound sterling. It is, therefore, necessary to consider the fluctuations recorded upon places adopting a *silver currency* as consisting of two parts,—the first part being incidental to any alteration that may have occurred in the *relative values* of gold and silver; the remainder, or second part, expressing the real fluctuation, or that which properly concerns a variation in the rate of exchange. Therefore to obtain a correct statement of rates dependent upon both metals, it is necessary when any variation has taken place in their relative value, to eliminate so much of the recorded fluctuations as arise from this cause. The result will then represent the extent of any *real* fluctuation in the exchange, or such as may be said to have its origin in the operations of trade.

Want of attention to another point of minor importance, renders most of the tables hitherto compiled incomplete, these tables giving, in some instances, the rates current for Bills payable *on demand* or three days' sight, and in other cases at three months date; but to express correctly periodic fluctuations, the quotations ought, in all instances, to be for bills payable at the *shorter periods*, the variations in the rate of discount causing apparent fluctuations when no real alteration has taken place; no better illustration can be given of the necessity of attention to these points than a reference to an elaborate return to Parliament by the Bank of England, which contains the rates for bills upon Amsterdam, Hamburg, and Paris, for a series of years. Now these rates are given for Amsterdam and Hamburg at three months' date, and for Paris at three days' sight, and being simple extracts from the published courses of exchange, of course make no allowance for the varying price of silver; for instance, we find Hamburg quoted 13·11½ (marks and schillings per pound sterling), in April, 1852, and in November of the same year 13·7, and upon Amsterdam at the same periods, the quotations are respectively 12·2 and 11·18 (guilders and stivers per pound sterling), showing apparently a heavy fall in both instances; but as silver had advanced in a greater proportion during the same period, viz. from 5s. to 5s. 1½d., the rates at the latter period were virtually rather higher, though apparently much lower.*

* The rates given in this return (220 I., Sess. 2) would lead to the supposition that the exchanges on *Amsterdam* and *Hamburg* had fallen fully 1½ per cent. in

It will, doubtless, be perceived that this apparent anomaly arises from the currencies of Hamburg and Holland being based upon *silver*; but, in further illustration of the subject, it may be as well to refer to some observations made by Ricardo, in which he says with regard to a set of tables prepared about the commencement of the century—"The accuracy of these tables must be admitted or proved before the conclusions which result from the inspection of them can command assent, but so far from this being the case, their accuracy is disowned by Mr. Mushet (the author) himself, who acknowledges the false principle upon which his first tables were calculated, and accompanies the second edition of his pamphlet with the following notice:—

"I have also corrected this mistake of considering the par to be 'fixed, because gold being the standard of the money in England; and silver in Hamburg, there can be no fixed par between those two countries; it will be subject to all the variations which take place in the relative value of gold and silver—To find the real par therefore, we must ascertain what was the *relative value of gold and silver when the par was fixed*, and what is the relative value at the time we wish to calculate it. As it is universally admitted that gold is the standard measure of value in this country, and that silver performs the same office in Hamburg, it is evident that no tables *can be correct* which assume a fixed invariable par, the true par must vary with every variation in the relative value of the two metals.' " Mr. Ricardo goes on to make another objection to these tables, and says again, "The degree in which the exchange is above or below par, is calculated by a reference to the prices quoted from Lloyd's list. Now invariably have these prices been for bills at two and a-half months, and as the par of exchange is computed from a comparison of the actual value of the coins of the two countries, payable *at the same time* in both, and not in one of them at the end of two and a-half months, an allowance for interest must be made for this period."

From this, it appears that Mr. Ricardo objects to the tables he refers to, because, in the first instance, they were prepared without reference to the varying price of silver, and when this error was perceived, the quotations given were always those at two and a-half months date, which may, and frequently do, vary, owing to alterations in the rate of discount, while the rate for bills on demand remains the same.

In comparing, therefore, periodic rates between this and other countries, the most important element is the metal which forms the

seven months, but as *silver* had risen in the mean time as much as 2 per cent. in London, it is clear that the decline in the rates is more than accounted for by this alteration in the price of silver alone.

legal tender for the time being, in the respective countries;—for instance, France and the United States have now *Gold* currencies, while those of Holland, Hamburg, and India are based upon *Silver*. For the purpose of ascertaining our Par of Exchange with countries having a Gold standard, it is simply necessary to compare the quantity of fine gold in the foreign coin with the quantity in our “sovereign,” and if the rate of exchange stands at such a point as to show that less fine gold is receivable abroad than is paid here through the operation of purchasing a bill upon that foreign country, the rate is said to be below par, and the probability of an export of bullion varies with the extent of the decline below this par.

In illustration of this, the 20-franc piece, the present virtual legal tender in France, contains 89·617 grains of pure gold, or one franc contains 4·4808 grains; and our sovereign having 113 grains of pure gold, it follows that there are about the same number of fine gold grains in 25 francs, 20 centimes, as in 1*l.* sterling, in other words the fixed par between London and Paris is about 25·20. Now if the rate of exchange here, upon Paris, is quoted below that point, it indicates that less than 25·20 are obtainable for every 1*l.* sterling, and the rate is then said to be below par.

Our par of exchange with those countries where *Silver* alone is admitted as a legal payment is not a similar fixed quantity, but fluctuates with the price of silver;—thus there are 165 grains of pure silver in a rupee; at 5*s.* per oz. for standard silver, this would be equivalent to about 1*s.* 10½*d.* of our money, but at 5*s.* 2*d.* per oz. it would be equivalent to 1*s.* 11*d.*, consequently the par of exchange ranges under these conditions from 1*s.* 10½*d.* to 1*s.* 11*d.*, showing that when silver is 5*s.* per oz., it may answer to export it to India if the rate for bills is 1*s.* 11½*d.*, but it would not answer to do so if silver were 5*s.* 2*d.* per oz.

Consequently to ascertain the real fluctuations in the case of those countries which possess a *gold* standard, we have merely to note the simple rise and fall;—but to make a fair comparison of the periodic fluctuations in our rates upon countries with a *silver* standard, it is necessary to adjust these fluctuations in accordance with the varying price of silver. It may be as well to add that no allowance is here made for the percentage charged by different governments for converting the raw metal into coin, which occasionally affects slightly the profit on export, but of course has no influence on the main object now in view of obtaining the real fluctuations.

Out of the five places now under review, in two of them, namely, *France* and *America*, which have *gold* currencies, we attain, therefore, correct results by merely recording the quoted rates for bills payable on demand. The other three, *Amsterdam*, *Hamburg*, and

India, with *silver* currencies it is proposed to adjust so as to do away with the disturbing influence caused by variations in the relative value of gold and silver, and to give an estimate of the real fluctuations which it may be assumed would have arisen had the price of silver here remained unaltered, the mode adopted to attain this end is to fix this price at, say, 5*s.* 2*d.* per oz., and having ascertained the *percentage of difference* between the price of silver during any given period, and *this fixed rate of 5*s.* 2*d.* per oz.*, by altering the quoted rates in the same proportion, we attain a correct view of the real *fluctuations* that would have occurred during the same period had the price of silver been constantly 5*s.* 2*d.* per oz.

This will, perhaps, be made clearer by a reference to the formula on which the adjustment is actually based $x = \frac{R \cdot a}{S}$ the symbol *a* representing the average price of silver for any given period, R the quoted rate of exchange during the same time, S the fixed price of 5*s.* 2*d.* for silver as now proposed. R expressing the amount of foreign silver coin given in exchange for our sovereign, must always rise as *a*, the average price of silver falls, and *vice versa*, a succession of these equations will therefore distinguish the fluctuations which are independent of the value of silver.

In the following table the annual *quoted* rates for these three places are calculated on the basis of 5*s.* 2*d.* per oz., and are given in parallel columns under the head of *computed comparative rates*.

TABLE A.

Years.	Amsterdam.		Hamburg.		Paris.	India.		New York.	Average Price of Silver per oz.
	Quoted Rates.	Computed Comparative Rates	Quoted Rates.	Computed Comparative Rates.	Quoted Rates.	Quoted Rates.	Computed Comparative Rates.	Quoted Rates.	
	Glds. Stiv.	Glds. Cts.	Mks. sgs.	Mks. cts.	Frs. cts.	<i>s.</i> <i>d.</i>	Rps. cts.	Dis. cts.	<i>s.</i> <i>d.</i>
1852....	11 18-68	11-652	13 7-00	13-120	25-280	2 0-19	9-688	4-8466	5 0-535
'53....	11 16-12	11-713	13 4-02	13-147	25-017	2 0-59	9-684	4-8927	5 1-514
1854....	11 14-48	11-630	13 2-68	13-063	24-994	1 11-55	10-111	4-8890	5 1-505
'55....	11 16-96	11-723	13 4-65	13-151	25-149	2 0-74	9-600	4-9000	5 1-346
1856....	11 16-64	11-713	13 5-04	13-181	25-289	2 0-20	9-817	4-9031	5 1-373
'57....	11 15-96	11-757	13 4-23	13-218	25-230	2 0-69	9-688	4-8729	5 1-786
1858....	11 14-88	11-632	13 5-10	13-193	25-090	2 0-39	9-748	4-8971	5 1-413
'59....	11 13-78	11-695	13 3-18	13-207	25-089	2 0-49	9-807	4-9064	5 2-036

Thus the average quoted rate for Amsterdam in 1852, was 11-18-68 (guilders and stivers), or 11-934 guilders and cents. per pound sterling, and the price of silver 5*s.* 0-535*d.*, the difference

between which and 5·2 being 2·36 per cent., the quotation of 11·984 for 1852, is consequently reduced 2·36 per cent., and the result 11·652 in the second column, is a correct estimate of the rate upon Holland, had silver been worth 5·2 in 1852. The Hamburg annual average rates of exchange are treated in a similar manner. With regard to India, that country having absorbed a very large quantity of silver during the last ten years, and the flow having been chiefly from hence, it is natural to expect that the rates of exchange should have been much influenced by the transmission of this bullion; it is accordingly found, that the exchanges upon *India* have indicated a great demand for remittances, the price charged for bills having frequently been sufficiently over the intrinsic value of the rupee as to cover the expenses of transmitting specie, including insurance and loss of interest during transit; these expenses forming of course the natural limits which the fluctuations in the rate of exchange between any two countries can never permanently exceed. A considerable portion of this silver has come from France, where, owing to the existence of a double standard, the fall in the value of gold compared with silver, has rendered the former metal the more advantageous tender in payment, and gold has extensively replaced the silver coin taken for export to the East.

Before the Indian mutiny, when income and expenditure were more happily balanced than at present, the East India Company had to draw Bills upon the Presidencies against disbursements made in this country, and the rates charged were a fair index of the demand for remittances; and although these drafts were issued at 60 days' sight, they may be more fairly considered as representing the short exchange, the preference given to the Company's paper enabling them to obtain an exceptional rate amounting to about one farthing per rupee above what first-class commercial bills could be obtained at.* Since the mutiny, however, instead of having to receive money from India, large sums representing the excess of expenditure beyond the requisite disbursements here, have had to be remitted by Government; and although rates are still advertised at which drafts are issued, the rates are fixed so high as virtually to exclude remitters, the insignificant amounts actually drawn being merely obtained by parties not sufficiently conversant with exchange operations to prevent them from incurring unnecessary loss. The rates since 1857 are therefore derived from the quotations for first-class bills, and the annual averages are computed in the parallel column on the basis of

* The quotations given for India from 1852 to 1856 inclusive, are those charged by the *East India Company upon Bengal*, except during a portion of 1855, when the rate was raised so high that the Company were virtually out of the market as drawers of bills.

5·2 per oz., in accordance with the principle adopted for the other countries with silver currencies.

The last column gives the rate in New York for bills at sight upon London. In consequence of the exchange operations with America being almost exclusively conducted on the other side of the Atlantic, any attempt to give the rate *here* upon New York could only have been an estimate derived from the rates quoted there upon London; and as there could be little, if any, advantage in this, our object being chiefly to ascertain comparative rates, the quotations given are those derived from New York. The par of exchange, owing to both countries having a gold currency, is easily ascertained,—the number of grains fine in the eagle of ten dollars is 232, and the grains in our sovereign being 118, it follows that about dollars 4·87 are equal to our pound sterling, which is nearly equivalent to 109½, according to the mode adopted in America of estimating the exchange at a fluctuating percentage on the nominal value of 4s. 6d. per dollar.

Recapitulating the chief heads of the inquiry up to the present point, it will be perceived that the mode adopted in the collation of these tables, and which might be extended to future statistics on the same subject, is *firstly*, to ascertain in all cases the rates for *short* bills, these quotations sufficing for countries with *gold* currencies, such as France and the United States, but which, if adopted without modification for places having *silver* currencies, are shown to be misleading; and to obviate this it is proposed, in those cases where the currency is based upon silver, to give, in addition to the current quotations, *computed* rates, which being estimated on a *fixed basis* are such as it may fairly be concluded would have existed had silver not varied from the price of 5s. 2d. per oz., in other words, adopting a fixed par, and enabling the *real* fluctuations, or those dependent on the course of trade, to be distinguished from the *apparent* fluctuations or those derived from the usual price currents.

A further alteration, though one of mere detail, provides that the Indian and American rates shall be stated in *rupees* and *dollars* per pound sterling, instead of *shillings* and *pence* per rupee or dollar; one advantage of this alteration is, that the *higher* quotations upon these places then correspond as in the case of Amsterdam, Hamburg, and Paris, with what are called *favourable* rates, and *vice versâ*, and enables the fluctuations to be more clearly set forth by putting them in the following form—

TABLE B.

Years.	Ratio of Fluctuation in the Foreign Rates of Exchange.						Average Bullion in Bank of Eng- land.	Average Discount (Bank of Eng- land Rate).
	Amster- dam.	Ham- burg.	Paris.	India.	New York.	Totals.		
1852.....	997	997	1006	992	981	4983	Mins. 20·7	2½
'53.....	1002	999	995	991	1001	4988	17·4	3½
1854.....	995	993	994	1035	1000	5017	13·9	5½
'55.....	1003	999	1000	983	1002	4987	14·3	4½
1856.....	1002	1002	1006	1005	1003	5018	11·2	5½
'57.....	1006	1004	1004	992	997	5003	10·1	6½
1858.....	995	1002	998	998	1002	4995	17·7	3½
'59.....	1000	1003	998	1004	1004	5009	17·9	2½

Note.—Table B is constructed as follows :—The number 1000 stands in each case for the *mean* or *average* rate of the eight years 1852-59. Upon *Amsterdam*, for example, the mean of the quotations set forth in Table A, col. 2, is 11·690, consequently this stands for 1000 in Table B, and the rate in the same column for 1852, which is 11·652, being 3·8 cents. or ·03 per cent. lower than the average of the eight years is represented in Table B by 997. The quotation for 1853 is found to be 11·713, or ·02 per cent. *above* the mean, and is consequently represented by 1002, the ratio 997 : 1002 expressing the extent of the fluctuation that occurred in the average rates for the respective years 1852 and 1853.

In this Table (B) the fluctuations in Table A are represented by the variation above or below the number 1000, which is adopted as a datum line or average of the computed *comparative* rates for the eight years under consideration. If the totals (col. 6) representing the collective fluctuations of the five places in this table are compared with the average annual amount of Bullion held by the Bank, it will be seen at once that on the whole the *higher rates* have coincided with low averages of bullion and *vice versâ*. On reference to the annexed statement—

TABLE C.

Years.	Ratios of Fluctuation in Foreign Rates of Exchange.	Average Bullion in Bank of England.
1852-53-58-59	4994	(Millions.) 18·4
1854-55-56-57	5006	12·4

it will be perceived that in the *four years* 1854, 1855, 1856, and 1857, when the Bullion averaged 12·4 millions, the average aggregate of these exchanges was 5006;—in 1852, 1853, 1858, and 1859, when the Bullion averaged 18·4 millions, the average was 4994;—and although the rates are not invariably high when the bullion is low, there is in no case any indication of that pressure in the form of lower exchanges, which is generally expected to coincide with a diminution in the bullion at the bank.

To investigate this somewhat further it is now proposed to examine the fluctuations in the *European* rates, with reference to the estimated amount of gold and silver Exported and Imported. A parliamentary return printed in 1858, gives the amount of *gold* imported into Europe during the years 1852, 1853, 1854, 1855, and 1856, at 100·9 millions,* and the French author Levasseur states that during the same period 96·1 millions were imported into England, and 4·4 into France. As European places receive, probably, only a limited quantity, except through England and France, the two estimates may be considered nearly to correspond. With regard to *silver* the same parliamentary return gives the import for these five years as an aggregate of 21·8 millions. Levasseur estimates it much higher or about 31·7 millions. The proportionate amount for each year would, however, be nearly the same, whichever estimate is taken as correct, and the smaller amount is adopted here as the assumed import. With regard to the amount *exported* from Europe, the great drain has, of course, been of *silver* to the East, this appears to have amounted during the eight years up to the end of 1859 to 75 millions, the *gold* sent to the same quarter having been 6·5 millions. The gold exported to other places out of Europe averaged about 2·4 millions annually. In the following Table (D), the figures for the years 1852, 1853, 1854, 1855, 1856, and 1857, are obtained from the parliamentary paper alluded to above;—the estimate for the years 1858 and 1859, from the third and fourth report on the Customs;—the requisite addition for the other European countries during these two years being calculated from the average of the six preceding years, and the published exports from the Mediterranean

* The estimate given in this return is for the seven years 1851 to 1857 inclusive, and reckons the increase in the *European* stock of Bullion during that period at 80·7 millions, from this is deducted 9·6 millions for the year 1851, which is not included here, leaving 71·1 millions as the addition for the six years 1852 to 1857.

† "La Question de l'Or," by E. Levasseur, 1858.

ports. It must be understood that this return is exclusive of the gold and silver produced in Europe.*

TABLE D.

Years.	Estimated Bullion retained in Europe.	Average Bullion in Bank of England.	Ratio of Fluctuation in the Continental Rates of Exchange.
	(Millions.)	(Millions.)	
1857.....	3·4	10·1	3014
'59.....	6·9	17·9	3001
1856.....	10·0	11·2	3010
'55.....	12·9	14·3	3002
1852.....	11·3	20·7	3000
'58.....	16·2	17·7	2995
1853.....	14·5	17·4	2996
'54.....	19·0	13·9	2982

On examining this table it is apparent that some connection exists between the amount of bullion retained in Europe, and the tendency of the exchanges here, the highest rates occurring when least bullion is retained, the lowest when the largest estimated addition is made

* The amount of bullion retained in Europe is estimated as shown in the following table:—

Years.	Imports from Producing Countries.			Exports to Places out of Europe.			
	Gold.	Silver.	Total.	Gold.	Silver.	Total.	Retained.
	Millions.	Millions.	Millions.	Millions.	Millions.	Millions.	Millions.
1852	15·2	4·7	19·9	6·0	2·6	8·6	11·3
'53	22·4	4·4	26·8	6·7	5·6	12·3	14·5
1854	22·1	4·2	26·3	2·7	4·6	7·3	19·0
'55	19·9	3·7	23·6	2·8	7·9	10·7	12·9
1856	21·3	4·8	26·1	2·0	14·1	16·1	10·0
'57	21·4	4·1	25·5	2·0	20·1	22·1	3·4
1858	20·0	3·7	23·7	1·8	5·7	7·5	16·2
'59	20·0	5·5	25·5	2·4	16·2	18·6	6·9

The amounts of gold and silver imported (cols. 1 and 2) up to 1857, are derived from the Parl. Paper, No. 381. For the years 1858 and 1859, from the report on the Customs of Imports into the United Kingdom, adding 1·2 millions as probable arrivals at other European ports. The silver exported is taken from the annual circular issued by Mr. Low of the silver shipped to the East; the exports of silver to other quarters are but trifling in amount, and considered as balanced by excluding the silver arriving at other European ports. The Gold exported out of Europe is estimated at an average of 1·5 millions in addition to the Eastern remittances, except for the years 1852 and 1855, when large quantities of coin were sent to Australia.

to the European stock; and if taken in series of two years the *Fluctuations* will be found, as in Table E, to follow in regular inverse ratio with the quantities of bullion retained.

TABLE E.

Years.	Estimated Bullion retained in Europe.	Ratio of Fluctuation in the Continental Rates of Exchange.
	(Millions.)	
1854 and 1853	16·7	2989
1858 „ 1852	13·7	2997
1855 „ 1856	11·5	3006
1859 „ 1857	5·2	3008

The special feature attaching to the fluctuations set forth in the preceding Table (E) appears to be sufficiently established to warrant further investigation, more especially with reference to the large increase that has taken place during the same period in our metallic circulation. On this point Mr. Weguelin stated to the Committee on Bank Acts, in 1857, that our circulation was supposed then to be equal to about 50 millions sterling, and to have increased 30 per cent. in the previous six years; looking to the fact that 50 millions were actually coined in ten years, up to the end of 1859, it would appear probable that this estimate is too low. Levasseur, the French author before alluded to, considers the metallic circulation in England to have amounted to 60 Millions in 1848, and reckons the addition to the end of 1856, at 40 Millions; this, on the other hand, is most likely an over-estimate. But in either case, for the sake of the present argument, it can be affirmed that in the absence of heavy drains of bullion, England has been the emporium of large additional quantities of gold, which must, to some extent, have had a tendency to raise the value of other commodities. Under the influence therefore of a large increase in the circulation, an excess of imports would naturally ensue until prices were again nearer a level. Without asserting that this is the sole cause of the phenomenon, it is clear that if imports were thus stimulated, it would affect the exchanges as seen in the present table. For instance, if 18 Millions of gold, arriving from the producing countries, were retained in Europe, 10 Millions or more would probably represent our share; and supposing this to raise prices for a time, imports being stimulated, while exports were diminished, the rates would naturally *fall*; and assuming the fall to arise from this cause, it would properly bear some proportion to the amount of gold retained in

Europe. In this light it would seem that the main leverage acting at present upon the exchanges, proceeds from the gold arriving from the producing countries. Of that gold a quantity surprisingly equal in its annual amount reaches the shores of Europe, the largest share coming to England. If at the time of its arrival an active demand exists for export out of Europe, it goes immediately to supply the void, and generally after having been exchanged for continental silver. If no such demand exists much appears to be absorbed into the English currency, its action influencing increased imports and low continental exchanges.

Recurring to the fact that lower exchanges in general occur coincidently with high bullion returns, and *vice versa*, it is probable that this appears an anomaly because a diminution of our reserve is almost invariably supposed to arise from an efflux to other countries, and that by raising the rate of discount which always brings back bullion, this gold is recovered by an increase of exports. That this opinion, however, is to a great extent a fallacy, would appear for the following reasons:—

1st. A partial suspension of business invariably ensues when any stringent measures are adopted by the Bank of England, that is to say, our exports are not, as a rule, increased under such circumstances.

2nd. A comparison of the estimated amounts retained in Europe, with the average amount of bullion in the bank, as seen in Table D, shows that these totals are quite independent of one another, and that the relatively large exports of bullion which occur when least is retained in Europe, do not necessarily affect the amount of bullion in the bank coffers.

3rd. Recent panics have indicated a simultaneous diminution in the reserves of bullion at all the great centres of commerce.

On the strength of these cumulative facts, it appears tolerably clear that an adverse condition of Bullion Reserves during the years now under review, is traceable, not so much to the *balance of trade* being against any one country, as to some universal cause acting simultaneously and sympathetically upon the principal trading communities.

The leading monetary event of the last ten years, namely, the large produce of Gold in Australia and California, has doubtless introduced many novel features; but a further analysis of the problems presented by this addition to the former stock of precious metals, is beyond the province of the present paper. The facts now brought forward appear, however, to establish the fact that as far as relates to one of the most important practical questions, the position of the Reserves at the chief entrepôts of commerce, we must no longer confine our view to the trade of any one country, or

content ourselves when considering an unexpected drain from the bank, with resting its solution upon the vague, and perhaps, therefore, generally adopted phrase of an unfavourable condition of the foreign exchanges, but study these fluctuations in bullion reserves, more with reference to the general condition of trade, as influenced at present by a large increase in the circulating medium. To throw much light upon this problem, including as it does the general effect of the gold discoveries, and their special influence upon the rate of interest and national reserves, except through the media of facts, would be expected by few, and least of all by the statist; and as a contribution to this end, the present tables are offered, and it is proposed to continue them in the Society's *Journal* for the sake of future reference in their present form, or with such improvements as may be suggested. As, however, *Silver* is quite as universal a standard of value in other countries as gold, the question of the relative value of the two metals becomes of considerable importance, more especially with reference to the large proportionate increase in the quantity of gold, and it is, therefore, proposed to close the present remarks with a few observations based on the fluctuations in the Price of Silver during the last ten years.

It is somewhat singular that the effect of the vast increase in the supply of gold has hitherto been such, that the fact of any depreciation with reference to the value of other commodities, is denied by many competent authorities; this question cannot, of

TABLE F.

Years.	Average Price of Silver in Bars, Standard.	Exports of Silver to the East.	
		From England.	From Mediterranean Ports.
		£	£
1850.....	4 11-987	—	—
'51.....	5 0-988	1,716,000	—
1852.....	5 0-535	2,630,298	—
'53.....	5 1-514	4,710,665	848,362
1854.....	5 1-505	3,132,003	1,451,014
'55.....	5 1-346	6,469,889	1,524,240
1856.....	5 1-373	12,118,985	1,989,916
'57.....	5 1-786	16,795,332	3,360,689
1858.....	5 1-413	4,784,923	911,043
'59.....	5 2-036	14,682,671	1,521,970

course, be conclusively decided by a reference to the price of silver alone, as other causes, such as diminished production, or increased

demand for silver, might make it more valuable; but looking at the annual averages in the table below, the evidence afforded appears to favour the opinion that the rise is mainly attributable to a depreciation in the value of gold. In the first place, the rise has been gradual, the years 1850 and 1851 give an average of 5s. $-\frac{1}{2}$ d. per oz.,—1852 and 1853 an average of 5s. 1d.,—1854 and 1855 an average of 5s. $1\frac{1}{2}$ d.,—1856 and 1857 an average of 5s. $1\frac{1}{2}$ d.,—1858 and 1859 an average of 5s. $1\frac{1}{2}$ d. The average for the five years previous to 1850, may be taken at about 4s. $11\frac{1}{2}$ d., and the argument that the rise has been caused by the increased demand for export to the East, does not appear tenable if examined in connection with the actual amounts exported in each year. Previous to 1851 the exports to India and China were not so regularly reported as at present; in that year the amount exported was only 1,716,100*l.*, consequently before the export had attained dimensions of any magnitude, a rise in silver had been established to the extent of nearly 2 per cent.; in 1852 and 1853 the exports for the two years were 7·8 millions,—in 1854 and 1855 9·5 millions, the excess of 1854 and 1855 over the two preceding years was therefore only 2·2 millions, and yet the price rose about $\frac{1}{2}$ per cent. In 1856 and 1857 the exports amounted to the enormous total of 28·9 millions, in two years, an increase of nearly nineteen millions as compared with the two previous years, yet silver did not rise quite $\frac{1}{2}$ per cent. The amount sent out during the two years 1858 and 1859 was only 19·4 millions, or nine millions and a half less than during the two preceding years, but in silver a further rise was established of nearly $\frac{1}{2}$ per cent. These facts show that the chief advance occurred before silver was sent away in large quantities to India; and though temporary fluctuations have since ensued, a steady rise has been developed, which appears independent of the demand for India, as the fluctuations in the price are seen not to accord at all with the quantities exported.

That silver has risen about 4 per cent., and that this rise is not caused by the demand for export, seems demonstrable from the facts here given; a depreciation in the value of gold appears, therefore, the only reason that can fairly be assigned for the advance which has taken place in the price of silver during the last ten years. Whether the actual depreciation in the value of gold has exceeded this percentage, the available supply from France moderating, as imagined by M. Chevalier, the rise in silver, is a question which it is not now necessary to discuss, but it is important to observe, that the point at which it first becomes profitable to export silver from France in exchange for gold, is, owing to the nature of their double standard, when silver here is worth 5s. 1d. per oz.; and it is remarkable that the price has been much steadier since it attained this point, only rising since, in such measure as might be expected from the increasing

difficulty of procuring coin from a source which it may reasonably be expected is now beginning to fail.

The preceding tables were compiled before the close of last year, and the figures only extend to the end of 1859, the present pressure upon the money market renders it of interest to add some further particulars.

The *Gold* arriving from the *producing countries* in 1860 was less than for some years past; but on the other hand the exports of *Silver* to the East, notwithstanding the Chinese War, have been on a comparatively moderate scale. The Continent, however, appears to have absorbed more bullion than usual—the result being that more has been *exported* than imported in 1860—and in this respect the year forms an exception to any in the last decade, except perhaps 1857. The average amount of bullion in the Bank of England last year (1860) was 15·25 Millions, and the average rate of discount $4\frac{1}{4}$ per cent., being in each case very nearly the average of the nine preceding years.

The perturbed condition of the money market during the last two months of the year (1860) indicates the presence of the distinctive feature already commented upon, as peculiar to late years in the existence of a simultaneous drain of bullion from the Banks of England and France.

TABLE G.

Years.	Average Amount of Bullion in Bank of England.	Average Rate Discount, of Bank of England.	Average Amount of Bullion in Bank of France.	Average Rate of Discount Bank of France.
	Millions.	Pr. cent. pr. an.	Millions.	Pr. cent. pr. an.
1852	20·7	$2\frac{1}{4}$	23·6	$3\frac{1}{4}$
'53	17·4	$3\frac{1}{4}$	18·0	$3\frac{1}{4}$
'54	13·9	$5\frac{1}{4}$	16·2	$4\frac{1}{4}$
'55	14·3	$4\frac{1}{4}$	13·6	$4\frac{1}{4}$
'56	11·2	$5\frac{1}{4}$	9·0	$5\frac{1}{4}$
'57	10·1	$6\frac{1}{4}$	9·2	$6\frac{1}{4}$
'58	17·7	$3\frac{1}{4}$	18·4	$3\frac{1}{4}$
'59	17·9	$2\frac{1}{4}$	22·7	$3\frac{1}{4}$
'60	15·2	$4\frac{1}{4}$	20·0	$3\frac{1}{4}$
Average of nine years	15·4	$4\frac{1}{8}$	16·7	$4\frac{1}{4}$

The remarkable sympathy which exists in the annual average reserves of the Banks of England and France, is best evidenced by putting the above returns in series of two years. If grouped in this way, it appears that to end of 1859 the fluctuations in the average amount of bullion held by each Bank have invariably followed in the same order; this will be seen by the subjoined table:—

TABLE H.

Years.	Average Amount of Bullion in Bank of England, in Two Years.	Average Amount of Bullion in Bank of France, in Two Years.	Average Rate of Discount, Bank of England, in Two Years.	Average Rate of Discount, Bank of France, in Two Years.
	Millions.	Millions.	Per cent.	Per cent.
1852 and 1859	19·3	23·1	2½	3½
1853 „ 1858	17·5	18·2	3½	3½
1854 „ 1855	14·1	14·9	5	4½
1856 „ 1857	10·7	9·1	6½	6

It will also be found that in the case of the Bank of England, the rate of Discount has been constantly maintained *inversely* as the stock of Bullion, and although the same does not hold good with reference to the Bank of France, the deviation is not of sufficient importance to show that the administrators of that Bank have acted upon unsound principles in regulating the rate of discount;—for it must be borne in mind that it was illegal to charge a higher rate than 6 per cent. prior to 1857, and that from this circumstance it was impossible to restrict discounts at the time of the greatest pressure in 1856, except by limiting the term or number of days which the Bills brought for discount had to run.

It would seem that the Average Bullion held by the Bank of England during the *nine* years to the end of 1860, has been 15·4 Millions, and the average rate of discount $4\frac{5}{8}$ per cent.; the Average amount of Bullion held by the Bank of France, including the Branches during the same period, has been 16·7 Millions, and the rate of discount $4\frac{1}{2}$ per cent. The Bullion in the Bank of France on the 10th January, 1861, was about 1·4 Millions, while our return for the Bank of England gave but little over 12 Millions; this appears to indicate that the pressure has been somewhat more severe here than in France, a fact of which there is but little doubt, as the rate of discount which was raised almost simultaneously at both Banks to 7 per cent., has since been lower in the open market in Paris than in London; but on the other hand, the comparatively favourable position of the Bank of France is counteracted by the undue preponderance of silver, of which the reserve now consists.

While the above figures show, therefore, a generally cautious policy on the part of the Bank of France, they appear to justify two remarks of some significance;—the *first* being, that the proper regulator of the rate of interest is the Reserve of Bullion in hand, and that timely attention to this point is as indispensable as it is beneficial;

—the *second*, pointing to the inadvisability of retaining, as by law in France, both silver and gold (in the fixed proportion of 15½ silver to 1 gold) as optional in payment to any amount. Gold being now the cheaper medium for discharging debts has, in consequence, been adopted as the leading currency; but it can scarcely be doubted, apart from the other difficulties which surround this change in the law, that if the silver coins of France were reduced in value, passing, as they do with us, as tokens, and only legal for the payment of small sums, the amount of silver in circulation would largely increase; and an equal amount of gold being thus released from circulation, would naturally flow back to the Bank, palliating without, of course, altogether obviating a pressure like the present one.

These observations may perhaps be considered as an additional testimony, supported by facts, that commercial legislation should rest upon a sound and reasonable basis; and that all such unhealthy expedients as purchasing gold at a premium, or attempting to restrict the rate of interest, may be safely and for ever discarded.

On the PROGRESS of the EXPENDITURE of the UNITED KINGDOM.
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[Read before the Statistical Society, 14th January, 1861.]

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I.—*Introduction.*

As a sequel to my paper on the Revenue of the United Kingdom, I venture to bring before the Society some observations on the public expenditure. A difficult task it is to form a correct view of the incidence of taxation, and to arrive at correct conclusions as to the best methods of levying taxes, with any hope of apportioning the national burdens justly and equitably among all classes of society. But equally, if not more difficult, it is to consider how far we may, without imperilling our national existence, and without disregarding the calls of an advancing civilization, economize that portion of public resources which is devoted to State purposes. And if any attempt to estimate the prospective produce of taxes has been regarded as exceeding the limits of pure statistics, how much more would it be so considered were I to speculate on the probable course of the public expenditure, and lay before you figures, the realization of which would essentially depend on extraneous influence and on contingencies wholly beyond our power of control? Nevertheless, in this, as in other branches of statistical inquiry, the past may aid us much as a guide for the future; and if we take under review a sufficiently lengthened period, and examine what we have expended in times of war as well as in times of peace, our anticipations of the future may be founded on the surest basis, and embrace the most unforeseen emergencies. Indeed I regard it as a primary object in

statistical science to show, by inductive reasoning from past experience, what is the goal towards which we are advancing, and it is by pursuing this method of inquiry, that we shall best render the labours of our Society useful to the financier, the politician, and the student generally.

A general view of the finances of the United Kingdom exhibits the following striking facts:—

II.—United Kingdom.

(A.)—Revenue and Expenditure, 1800-59.

Years.	War, Peace.	Net Amount of Taxes Received.	Amount of Expenditure.	Deficiency.	Excess.
		£	£	£	£
1800-16	War	51,000,000	74,500,000	23,500,000	—
'17-20	Peace	53,000,000	54,500,000	1,500,000	—
'21-30	"	55,000,000	55,000,000	—	—
'31-40	"	48,000,000	51,000,000	3,000,000	—
'41-50	"	57,000,000	56,000,000	—	1,000,000
'51-60	War and peace	60,500,000	63,300,000	2,800,000	—
1851	Peace	52,000,000	49,500,000	—	2,500,000
'52	"	53,000,000	51,000,000	—	2,000,000
'53	"	54,000,000	51,000,000	3,000,000	—
'54	"	57,000,000	60,000,000	3,000,000	—
'55	War	63,000,000	84,000,000	21,000,000	—
'56	"	68,000,000	78,000,000	10,000,000	—
'57	{ War and mutiny.... }	66,000,000	66,000,000	—	—
'58	War	62,000,000	61,000,000	—	1,000,000
'59	"	62,000,000	64,000,000	2,000,000	—
'60	"	67,500,000	68,000,000	500,000	—

This tabular review of our finances shows:—

That during the great struggle with France, the expenditure exceeded the revenue by 23,500,000*l.* a-year, to meet which, loans were contracted representing a funded debt of nigh 820,000,000*l.*

That on the restoration of peace, little by little, from 1817 to 1830, the revenue and expenditure were equalized.

That in the following decennium the finances of the nation again left an average deficit of nearly 8,000,000*l.* per annum.

That in the period of 1841-50, owing to the imposition of the income tax by Sir Robert Peel, the public finances were improved, and some surplus was realized.

That it so continued till 1853, after which the Russian war, the mutiny in India, and the China war have produced a considerable deficit, which if thrown on the whole decennium, 1851-60, produces an average deficit of 3,000,000*l.* per annum.

Nor have the finances of other nations been much better for

many years past. In France, for the entire period from 1830 to 1854, there was an average annual deficiency of revenue of about 4,000,000*l.* Some improvement has, it is true, been introduced in late years, but it has been effected by means of enormous additions to the public debt. The finances of Austria have become chronically disordered. An average deficiency of 10,000,000*l.* a-year is a condition which no country can bear long; and the same might be said of other countries. That nations, whose resources are limited, and whose political institutions are feebly maintained, should often be under the necessity of resorting to loans, we may well imagine; but that the United Kingdom should have been unable to pay yearly its own expenses seems very extraordinary, especially when we consider how much the capital of the nation has increased within the last sixty years. In my paper on the Distribution and Productiveness of Taxes, read before the Society in January, 1860, I have shown, that whilst in 1801 the wealth of the United Kingdom was estimated at 1,800,000,000*l.* or 112*l.* per head, the same in 1858 was estimated at 6,000,000,000*l.* or 206*l.* per head; and that whilst the income of the population in 1800 was estimated at 14*l.* 7*s.* per head, in 1858 it was estimated at 20*l.* 15*s.* per head. I have shown also, that whilst in 1801-10 the taxes of the country absorbed 25 per cent. of the national income, in 1859 the portion absorbed was only 10 per cent. That the population nigh doubled within these sixty years, from 16,000,000 in 1800, to 30,000,000 in 1860; and that whilst in 1801-10 the proportion paid per head was 3*l.* 7*s.*, in 1851-58 it was 2*l.* 2*s.* 1*d.* per head only. With facts such as these before us, it is impossible not to arrive at the conclusion that it has been want of will, rather than want of means, that has prevented this country from supplying whatever amount has been necessary for the exigencies of the State. In so doing, however, we fail in one of the primary conditions in the compact between the nation and the state, the Government incurring yearly a certain amount of expenditure voted by the representatives of the nation, on the understanding that taxes of a somewhat equal amount may be annually paid; and it is only because the people perform this duty grudgingly and sparingly, that the Government is compelled to resort to loans. As a matter of fact, the lesson we draw from the experience of the last sixty years is that this country is quite willing to pay a limited amount of taxes varying from 50,000,000*l.* to 60,000,000*l.* per annum, but that whenever an extraordinary effort has been required, whether to meet the expenses of a war, or to provide for an indemnity to slave owners, or to meet the distress caused by the potato failure, a loan has invariably become necessary. An attempt has indeed been made to repay the loans for the Russian war, but one instalment only has been paid, and we have since contracted a new loan for the fortifications.

The public expenditure for the year ending 31st December, 1869, exclusive of payment for collection of revenue, has amounted to 68,000,000*l.*, divided as follows:—

	£	
Interest of National Debt	27,000,000	40 per cent.
Forces { Army	14,000,000	44 "
{ Navy	13,000,000	
China War	3,300,000	
Civil list and court charges	10,700,000	16 "
	<u>£68,000,000</u>	<u>100</u> "

Here we have the important fact, that the sum expended for the civil government in this country bears the smallest proportion to all other items. Parliament is always penurious, and extremely unwilling to pass any votes for the civil services. The salaries are screwed down to the minimum; all expenses for education, health, or improvements, are looked into with the most jealous eye; but the war expenditure, however large, seldom finds an objector. Whilst in a very few nights, and with the most unanimous consent, 10,000,000*l.* or 20,000,000*l.* are voted for the army and navy, the votes for the civil service are struggled through in a most disheartening manner.

As compared with other countries, the distribution of our expenditure exhibits a striking contrast.

(B.)—*Proportional Expenditure for Public Debt, Forces, and Civil Government, 1859.*

	War.	Per Cent.	Interest of Debt.	Per Cent.	Miscellaneous.	Per Cent.	Total.
	£		£		£		£
United Kingdom	30,300,000	44	27,000,000	40	10,700,000	16	68,000,000
United States	8,000,000	47	2,000,000	11	7,000,000	42	17,000,000
Portugal	800,000	26	700,000	24	1,500,000	50	3,000,000
Spain	4,700,000	23	5,600,000	29	9,200,000	48	19,500,000
Austria.....	11,000,000	32	10,000,000	29	13,000,000	39	34,000,000
France	19,000,000	26	23,000,000	31	31,000,000	43	73,000,000
Prussia.....	5,000,000	27	2,400,000	12	13,700,000	61	19,500,000
Russia	15,000,000	34	5,000,000	11	24,000,000	55	44,000,000

In examining these statistics, however, we must of course remember that many things which in this country are promoted by private efforts and voluntary contributions, are, in other countries, entirely supported by the State; and that many things which in this country are defrayed by local or municipal funds, in other countries are paid by the Imperial Government. Still after making all allow-

ances, it is a remarkable fact that so little of the public expenditure of the United Kingdom is really spent in good and beneficent objects.

Of the three leading branches of expenditure, viz., the interest of the debt, the forces, and the civil charges, the first is subject to little change from year to year; the second is regulated mainly by the character of our political relations; and the third, embracing the whole expense of internal government, collection of the revenue, administration of justice, &c., is made up of a vast variety of small items, some of which are uncontrollable, and others are the necessary results of the increased resources, influence, and power, of the United Kingdom.

III.—*Army Expenditure.*

The Army Expenditure first claims our attention. Of the 15,000,000*l.* required for that service, nearly the half goes in pay, allowances, provisions, fuel, clothing, &c.; about a third in warlike stores, fortifications, barracks, wages of artificers, &c.; and the remainder in rewards for military services, pensions, &c. As the pay and allowances of the force constitute the great bulk of this expenditure, we shall first inquire into the number of men we have to provide for, and then enter into the other charges included in the army estimates. Since the commencement of the present century, the British army has been as follows:—

(C.)—*Average Force of the British Army, 1800-59.*

Years.	Peace, War.	Home.	Colonies.	Militia.	Volunteers.	Amount Voted.
						£
1800-15	War	144,000	59,000	69,000	320,000	25,000,000
'16-20	Peace	72,000	49,000	—	66,000	13,000,000
'21-30	"	51,000	38,000	—	56,000	9,200,000
'31-40	"	53,000	43,000	—	27,000	8,200,000
'41-50	"	70,000	46,000	—	16,000	9,000,000
'51-53	Preparation for War {	84,500	46,000	—	14,500	9,200,000
'54-58		88,000	44,000	—	15,000	16,500,000
'59-60	War	88,000	44,000	—	15,000	15,000,000
'60-61	"	100,000	45,000	—	150,000	14,800,000
'61-62	Peace	101,000	45,000	—	150,000	14,600,000

As compared with the Armies of other countries, on a peace footing, as given in the Almanack of Gotha for 1861, the British will stand thus:—

(D.)—Proportion of Armies to Population and Area.

	Number of Men on Peace Footing.	Number of Inhabitants.	Square Miles.	Number of Soldiers per 1 Sq. Mile.	Number of Soldiers per 1,000 Inhabitants.
<i>United Kingdom</i>	100,000*	29,000,000	122,000	·81	3·40
<i>France</i>	316,000†	36,000,000	207,000	1·52	8·77
<i>Austria</i>	298,000	35,000,000	257,000	1·13	8·50
<i>Prussia</i>	212,000	18,000,000	108,000	1·96	11·70
<i>Russia</i>	578,000	71,000,000	130,000	·27	8·10
<i>Spain</i>	233,000	15,500,000	183,000	1·26	15·0
<i>Belgium</i>	74,000	4,700,000	11,000	6·70	15·60

* Exclusive of the army stationed in the Colonies.

† Exclusive of the gendarmes and of 70,000 troops stationed in Algeria.

It will appear from this table that, in proportion to population, the British army is considerably smaller than that of other European States. We must remember, however, that whilst in this country, owing to the respect for law, order, and peace, the military is practically quite useless in time of peace, in other countries it is always wanted to overawe the people. A correct comparison of army statistics is perhaps the most difficult thing to undertake. We can scarcely estimate the real strength of the public forces of the European States at the present moment; what proportion of them are really available, what is their state of equipment, their ages, and experience; the number under *congé* or in active service, and the number stationed at great or short distances to be depended on in cases of emergency.

If we look over the table of the British army since the restoration of peace in 1815, we shall see that in time of peace the British army at home has averaged 52,000, and in the colonies 40,000, besides the militia and volunteers, whilst the present number of our home army is 100,000. What are our prospects as regards the number of men we are to maintain? We are, at present, at peace with all nations, yet our army is just double of what it was during the whole period of peace, whilst we have now in arms nigh 150,000 volunteers. Shall we maintain our army at a war standard, or shall we return to more moderate limits? This is an important question, but it is not one for the Chancellor of the Exchequer to determine. It is for public opinion to guide, and for the Cabinet to direct. Let confidence be once introduced in the pacific relations of European States, let an end be put to the jealousies and fears which have agitated public mind for so long a period, and the Cabinet will at once see it fit to return to the peace standard of 1820 to 1840. We rejoice to notice a slight tendency towards this consummation. The

nation is somewhat tired of this constant succession of wars and mutinies. There is a time for everything, and we trust a time for peace is now coming. Should this be our experience for the future, then we may look forward for a reduction of at least 25,000 soldiers, at a saving of about 1,000,000*l.*, a measure which will be more than justified if we have regard especially to the 150,000 volunteers now in arms. Into the policy of encouraging the maintenance of the volunteer force I shall not enter. On economical grounds it is surely cheaper to entrust the national defence to the army or to a number of men who shall devote their whole time and energies to the profession of arms, than for the whole nation, or any portion of it, and especially the most active and vigorous, to neglect their daily avocation to go to drill and parade. And if the maintenance of the volunteers is not to produce some reduction in our army, the nation will pay double or treble the usual amount. Supposing each volunteer to spend 5*l.* a year in his uniform, subscription, &c., and a month in the year for drill, &c., as the aggregate of so many hours a day or week, we shall have an expenditure of 750,000*l.* and 150,000 months a-year, the value of which it is impossible to estimate. It may be said that the time thus spent is not a real waste if our young men thereby acquire muscular and physical strength, yet in so far as any present work is actually neglected a decided waste will ensue, setting aside that any intellectual effort, unless accomplished at a certain age, there is little chance of its being made at all.

Besides the diminution in the number of our home army, we should look forward to some reform in the expenditure incurred for the military defence of the British Colonies. That the garrisons of Malta, Gibraltar, and the Cape of Good Hope should be paid for by the Imperial Exchequer, is perhaps indispensable; but surely Australia, the West Indies, and Canada, are able to defray the cost of their own troops. Supposing by an arrangement with the Colonial Governments we could induce such Colonies to undertake at least the half of the cost of their military defences, we might save upwards of 1,000,000*l.* from the present colonial expenditure. This question is, I am happy to say, under the attention of Government, and as we learn that volunteer corps have been formed in most of the Colonies, I hope we shall soon hear of their dispensing altogether with the support of this country for their military defence. The salaries and allowances of our army are not capable of any reduction. When we think that the average pay of a non-commissioned officer is 38*l.* per annum, and of the rank and file 20*l.* per annum, it will be acknowledged that the inducements to enter the army are poor indeed. The general staff has nothing to complain of; an average of 350*l.* per annum is by no means low. It is the poor privates that are unpaid. The 1*s.* 1*d.* a-day, subject to so many deductions, is a

poor compensation for a life of hardship and danger undertaken on behalf of the country, and considerably less than the value of labour in any other department whatever. It would be a wise policy, with a view to the better organization of our army, and to prevent the numerous desertions, to augment the wages of privates and non-commissioned officers at least by 6*d.* and 1*s.* a-day respectively.

Some extensive reductions may safely be expected this year in the cost of warlike stores, whilst the cost of fortifications will not appear on the estimates, as it has been provided for by a special loan. The 1,000,000*l.* spent in barracks and educational provisions are perhaps all wanted; and it is all-important to spare nothing which will tend to improve the health and morals of the soldiers. As much as 2,000,000*l.* a-year are now spent on the non-effective service, but the only question we shall offer on this subject is, is it right that those who receive pensions or half-pay should in all cases retire from active service? A large number of men so rewarded are in reality in the prime of life, and I see no reason why their services should no longer be available to the country. Taking all these circumstances into consideration, as well as the state of politics, darkened as it is by the uncertainties of Italy, the ferment in Hungary, the troubles in Denmark, and the secession of the Southern States of America from the Union, it would be idle to expect that the army estimates for the next few years will amount to much less than 10,000,000*l.* to 11,000,000*l.*

IV.—*Navy Expenditure.*

The navy expenditure for the year ended 31st March, 1860, amounted to 12,000,000*l.*, and for the year 1861-62 votes are about to be taken for 12,000,000*l.* Since the commencement of the present century, this expenditure for naval purposes, and the number of seamen and marines provided for, were as follows:—

(E.)—*Average Number of Seamen and Marines, 1800-60, and Amounts Voted.*

Years.	War, Peace.	Number of Seamen and Marines.	Amount Voted.
			£
1800-15	War	121,000	17,500,000
'16-20	Peace	26,000	8,000,000
'21-30	"	30,000	5,700,000
'31-40	"	30,000	5,200,000
'41-50	"	41,000	6,800,000
'51-53	"	42,000	6,800,000
'54-58	War	64,000	14,200,000
1859	"	59,000	12,000,000
'60	"	84,000	13,000,000
'61	Peace	77,000	12,000,000

The navy expenditure depends much less than the army expenditure upon the number of sailors and marines. Whilst the wages and victuals of the army absorb nearly 50 per cent. of the whole expenditure, the wages and victuals of the navy absorb only 88 per cent. of the whole. These items have, however, been greatly increased of late; the number of seamen is much larger than in previous years; the wages of able seamen (continuous service) were increased from 1*s.* 4*d.* to 1*s.* 7*d.* per day, and those of other classes of officers were also improved by an alteration and re-arrangement of their classification, and the rate of victualling has risen from 15*l.* - *s.* 7½*d.* to 18*l.* 12*s.* 3¾*d.* per man per annum, in consequence of the higher prices of articles of provision. To these important sources of expenditure we must add the expense occasioned by the wear and tear of the ships, and the constant need of repair. The amount spent in building, converting, repairing, and fitting ships in 1859-60, amounted to upwards of 4,000,000*l.* A large number of artificers are constantly at work in our dockyards, a majority of whom being skilled workmen are very liberally paid. In late years, moreover, a great increase of expenditure has been occasioned by the substitution of steam for sailing ships. In fact, in every item there has been a large and constant increase, quite independent of the competition in which we have entered with France. In estimating the probable course of the naval expenditure, we must not ignore these various circumstances which in a manner put a large proportion of the expenditure quite beyond our immediate control.

The present number of seamen and marines being more than double the usual force in time of peace, we may hope to see a reduction of about 20,000 of them, by which we may save 1,000,000*l.*; and should the prospect of peace grow brighter and brighter, so as to render it unnecessary to continue that excessive activity which has for so long reigned in our dockyards, and enable us to reduce considerably the number of artificers, the purchase of naval stores, &c., we may make a further saving of 2,000,000*l.* or 3,000,000*l.* Should we be correct in these anticipations, we will find that the navy estimates for the five years will amount to about 10,000,000*l.*, so that altogether, from these two sources, the army and navy, we may in time realize a saving of at least 6,000,000*l.*

V.—Civil List and Civil Charges.

After having provided for our external security, it is the duty of the State to provide for the internal government, the maintenance of order, the protection of civil rights, the endowment of public institutions, and above all, for the support of the Crown and Parliament. These various expenses, included under the designation of Civil List and Civil Services, are partly constituted as

permanent charges, and defrayed by the Consolidated Fund, and partly as supply services voted yearly by Parliament.

VI.—*Civil List.*

The first of these permanent charges is the support of the Crown. The sum of 400,000*l.* appropriated for our gracious Sovereign, exclusive of the revenues from the Duchies of Cornwall and Lancaster, bears a favourable contrast with the enormous dotations of other European Courts. The Emperor Napoleon, for example, receives 1,000,000*l.* per annum. Whatever sum, however, may be allotted to Her Majesty, is, I am sure, most cheerfully and heartily paid, and no sacrifices would be deemed too great, which may contribute to the happiness of a Sovereign so pre-eminently distinguished for her wise and benignant rule, for the most endearing and attractive graces, and for her domestic and social virtues.

VII.—*Annuities and Pensions.*

What is eminently objectionable in the annuities and pensions granted for eminent services—military, naval, administrative, or judicial—is the length of their duration. It is almost impossible to realise that we are yet paying for the meritorious services rendered by William Penn, the Duke of Marlborough, and the Duke of Shomberg. Is it right to saddle the nation with such burdens for ever and ever? And for ever practically they are, because so long as 2,000*l.* or 4,000*l.* are provided for the new comers of these illustrious families, we may be quite sure that an heir or a representative will be manufactured somehow. The sooner, therefore, these pensioners are bought off the better; and as a rule, no pension should be granted for a longer period than for the lives of the grantees. Far better it is to reward liberally, by a present grant, any eminent service, than charge the nation indefinitely with burdens of this description.

VIII.—*Religious Grants.*

Some very objectionable sums figure under the head of salaries and allowances defrayed by the Consolidated Fund, such as the augmentation of stipends to the Scotch Clergy 17,000*l.*, the salaries of the Ecclesiastical Establishment in the West Indies 20,300*l.*, and the endowment of Maynooth College in Ireland 26,360*l.* An effort should certainly be made to put an end to such expenditure, for which the Government gets only blame and abuse. The West India Islands need not get money from this country in support of their churches; and the Maynooth grant, apart from its being a grant in support of superstition and error, is a yearly source of scandalous waste of time in Parliament. If the Government were

prepared to deal with even hands as regards all religious communities, they would be supported by all in the repeal of such unnecessary and ill-requited grants. The State, we must remember, derives its revenue from the entire community, irrespective altogether of their religious opinions, and therefore it is called upon in return to administer the national finances with equal impartiality. If we do not wish it to sanction religious opinions which we deem grounded on error and ignorance, we must be prepared to recommend the State to withhold its support from all religious communities.

IX.—*Diplomatic Service.*

The salaries and pensions for the Diplomatic Service, including our Ambassadors and Ministers, as well as our Consuls abroad, amount to the goodly sum of 400,000*l.* The Diplomatic Service consists of two Ambassadors having a salary of 23,000*l.*; twenty-three Ministers having collectively 97,000*l.*; twenty-three Secretaries of Legation 12,900*l.*; twenty-nine paid Attachés 9,110*l.*; and eight Chargé d'Affaires and Consuls-General. France spends an equal sum of 400,000*l.* in her diplomatic service, but her classification of Ministers, Consuls-General, Consuls, &c., is better than ours. Much remains to be done in this country towards a perfect organization of the Diplomatic Service.

It seems singular that France and Turkey should be the only seats for British Embassies. Could they not be reduced to the same level as Russia, Prussia, Austria, and the United States? There is, moreover, no reason for maintaining seven Ministers in the German States, including an annual expenditure of nigh 31,000*l.* A single mission at a central point in Germany might be quite sufficient.

X.—*Administration of Justice.*

The salaries of Judges and Officers of Courts of Justice, paid out of the Consolidated Fund, amount to the large sum of 700,000*l.*, but if we include the whole expenses of our Judges and officers, Prisons and Police, the sums spent for this purpose will amount to not less than 4,000,000*l.* We have, in the United Kingdom, 449 Judges receiving in all 534,467*l.*, the Judges of the superior Courts having on an average 4,500*l.* each, and the Judges of the inferior Courts 740*l.* each. We do not grudge the remuneration of our Judges. We like to pick out for this high office the very best of the profession, and we prefer awarding to them a liberal sum, sure that by so doing we obtain the strongest guarantee for the most scrupulous integrity and the most complete absence of venality in our courts of justice. But the system pursued in granting compensation in every case where a reform is introduced is manifestly unjust to the public.

Nothing retards more the accomplishment of solid law reforms than the fear of having to compensate every officer at all affected by them. Why should not a public or a law officer be like merchants and other persons exposed to the contingencies of changes and fashions?

The expense under this head is partly paid out of the Consolidated Fund, partly annually voted in our supply services, and partly too defrayed by local rates. The votes for Law and Justice included in the second class of the Civil Services, have been as follows:—

	£		£
1835-40	606,000		
'41-50	949,000		
'51-60	2,081,000		
	£		£
1851	1,098,000	1856	2,257,000
'52	1,294,000	'57	2,637,000
'53	1,381,000	'58	2,462,000
'54	2,327,000	'59	2,544,000
'55	2,245,000	'60	2,565,000

XI.—Miscellaneous Payments.

Other miscellaneous services are paid out of the Consolidated Fund, about many of which the less said the better, such as the interest and sinking fund on Russian Dutch loan, the interest and sinking fund on Greek loan, and the compensation for loss of duty on the coinage of tin to the Receiver-General of the Duchy of Lancaster. In these and other items the heavy sum of 177,000*l.* is annually spent.

XII.—Supply Services.

But we must hasten to the Supply Services. These are divided into seven classes,—1st. Public Works and Buildings; 2nd. Salaries, &c., of Public Departments; 3rd. Law and Justice; 4th. Education, Science, and Art; 5th. Colonial and Consular Services; 6th. Superannuation and Charities, and 7th. Special and temporary objects. In the aggregate of these there has been certainly an enormous increase in late years.

Average Amount of Grants for Miscellaneous Services, 1835-60.

Years.	Average. £		£
1835-40	2,580,000		
'41-50	3,400,000		
'51-60	6,200,000		
	£		£
1851	3,950,000	1856	6,700,000
'52	4,400,000	'57	7,400,000
'53	4,800,000	'58	7,300,000
'54	6,600,000	'59	7,700,000
'55	6,600,000	'60	7,600,000

This is apparently a large increase. But if we examine each class separately, we shall find that but little saving can be anticipated in them in future years.

XIII.—*Public Works.*

The first class of the Civil Services is that for public works. This expenditure has increased as follows:—

Years.	Average.
	£
1835-40	194,000
'41-50	417,000
'51-60	751,000

£	£
1851	809,000
'52	621,000
'53	808,000
'54	816,000
'55	747,000

1856	893,000
'57	926,000
'58	781,000
'59	794,000
'60	622,000

But what have been the principal causes of this increase? First of all, the building of that huge structure the Houses of Parliament, whose stones are already rotten, and whose huge bell never yet rung. And next the harbours of refuge, the demand for which has become most imperative in consequence of the increase of commerce and numerous wrecks. Nor have we done with such expenditure. Probably, next year, we shall see the commencement of the new buildings for the Foreign and War Offices, and as to harbours of refuge our wants are now greater than ever. Our expenditure in parks, museums, and places of recreation, is indeed most limited. Yet no nation has ever deemed it inconsistent with the duties of the State to provide for the recreation, instruction, and convenience of the people, parks, gardens, and works of art which shall reflect its rank and achievements in the annals of politics, philanthropy, science, and virtue.

XIV.—*Salaries of Public Departments.*

The second class of the supply services is the salaries and expenses of public departments in which also there has been an immense increase since 1835.

	£
1835-40	700,000
'41-50	865,000
'51-60	1,313,000

£	£
1851	996,000
'52	1,032,000
'53	1,033,000
'54	1,400,000
'55	1,300,000

1856	1,514,000
'57	1,516,000
'58	1,480,000
'59	1,413,000
'60	1,413,000

Under this class there are comprised not only the salaries, but the printing, stationery, and postage of public departments. No doubt the salaries are increased, but the business of the offices have also increased enormously. The more extensive our trading, the more complicated our relations, and the greater our influence, more work will be brought in to our public departments. Hence it is that the Board of Trade which cost 22,700*l.* in 1835, cost 35,000*l.* in 1860. But of late years new offices have been created, such as the Poor Law Auditors of Unions, Poor Law Schoolmasters, and Medical Relief; three items which cost now 140,000*l.* per annum, also the Copyhold Tithe Inclosure Commission, the Registrar-Generals, and many other offices. Printing and stationery costs now more than double what it did in 1833. The quantity of paper consumed is not less than 3,600,000 lbs. It is easy to complain of the extravagant bulk of blue books, and that few read them through, but, who would not regret to see any diminution in the documents and information published respecting our public matters? Who would recommend the withdrawal from the public of so much solid and valuable matter, which often illustrates in the most tangible manner, the conditions, wants, and prospects of society?

XV.—*Education, Science, and Art.*

The expenditure for education, science, and art, has been of late years as follows:

	£		£
1835-40	169,000		
'41-50	308,000		
'51-60	869,000		
	£		£
1851	436,000	1856	877,000
'52	470,000	'57	997,000
'53	598,000	'58	1,126,000
'54	721,000	'59	1,328,000
'55	832,000	'60	1,305,000

This is an enormous increase, but the reason is clearly to be found in the popularity of the present system of educational grants by the Committee of Council on Education. Great value is reasonably attached to the present system which encourages voluntary efforts for education without imposing unnecessary trammels, yet I fear that the wealthier institutions are those which are most benefited. The most needy places and those most destitute of local energy are by this system wholly neglected. I know, that should the Government attempt to found schools of its own, even in the most necessitous localities, they would be met by the strongest opposition on the part of those who advocate the leaving of the entire work of education to voluntary efforts; yet it is sad to think that of the 1,800,000*l.*

now spent in the work of education, not a penny should be given to those portions of the kingdom which stand in reality most in need of it. With the permission of the Society I will offer an illustration of the working of the present system. For some years past I have taken some interest in a society for promoting religious education in the Highlands and Islands of Scotland. No portion of the Kingdom could be in greater need of the active benevolence of every philanthropic man in this country than those secluded and sequestered portions of Scotland. Far beyond the limits of trade, with a barren land and destitute of roads, the population grow up in ignorance and superstition. A society has been formed to plant schools among them, and by dint of indefatigable industry, mainly on the part of some excellent ladies in Edinburgh, a sufficient sum is yearly collected, which sustains in a very feeble manner as many as twenty-five or thirty schools, for which teachers are engaged at a miserable salary of 10*l.* to 15*l.* a-year. We thought we could get grants from the Privy Council; but, what with the endless routine work to go through, with the inconvenience that they will not correspond with the society but with each school only, and what with the requisites as to sizes of building, the want of certificated teachers, &c., not a penny have we got after three years endeavours. Of course regulations must be made, and if any school does not come up to such regulations it has no reason to complain if it does not get the coveted grants. Yet the fact is plain that schools which have little or nothing, can get nothing from the State, whereas let a school be opened in St. George's, Hanover Square, with an endowment of 20,000*l.* a-year, and the Privy Council will double it. Something is decidedly wanted in the present system, on the one hand, to reduce the number of schools supported by the State, and on the other to grant power to the Privy Council to dispense with the prescribed regulations when the exigencies of the localities justify it. The first of these objects might be obtained by specifying a minimum income for each scholar, and to allow grants to such schools only as do not possess such standard income. The condition of every school might be quinquennially ascertained, and as any one of these attains a state of self-support the State should at once cease to make grants on its behalf. Power should at the same time be given to the Committee of Council to make grants of sums exceeding the usual proportion to the amount voluntarily contributed, and to depart from the prescribed rules as to buildings, or from regulations as to correspondence, &c., as the circumstances of the case might require.

XVI.—*Superannuation and Charities.*

Class IV, Superannuation and Charities, demands but few observations here. The superannuation grants should be connected with

the public salaries, and the expense for charities is too small to demand any comment. The expenditure under this head has been as follows:—

1835-40	£	203,000		
'41-50		186,000		
'51-60		225,000		
1851	£	187,000	1856	£
'52	213,000		'57	226,000
'53	210,000		'58	240,000
'54	216,000		'59	242,000
'55	218,000		'60	243,000
				258,000

XVII.—Colonial and Consular, &c.

Under Class V, Colonial and Consular Services, there is contained such a multitude of objects that a comparison of the expenditure since 1835, could be of little avail. As it is the total average sums are as follows:—

1835-40	£	361,000		
'41-50		419,000		
'51-60		380,000		
1851	£	425,000	1856	£
'52	369,000		'57	320,000
'53	347,000		'58	382,000
'54	341,000		'59	369,000
'55	328,000		'60	428,000
				484,000

XVIII.—Special and Temporary.

Class VII, Special and temporary objects likewise include far too many objects for special comment. The averages under this head are as follow:—

1835-40	£	237,000		
'41-50		142,000		
'51-60		564,000		
1851	£	198,000	1856	£
'52	306,000		'57	537,000
'53	324,000		'58	598,000
'54	708,000		'59	678,000
'55	800,000		'60	780,000

XIX.—Interest of the Debt.

One other item remains to be considered, that is the charge for the interest of the funded and unfunded debt. This important

source of expenditure has varied but little during this half century. The decennial averages were as follows:—

	£		£
1801-10	22,413,872	1831-40	29,035,480
'11-20	30,463,993	'41-50	28,511,976
'21-30	29,443,768	'51-60	28,000,000

Some little reduction was obtained last year on the interest of the debt by the falling due of certain annuities, but we have since added the interest of the loan for the Russian war, the exchequer bonds of which had to be renewed, and also of the loan made for the fortifications.

XX.—Conclusions.

Bringing now these observations to a close, I would submit the following facts and conclusions as naturally flowing from the present state and prospects of the public expenditure.

1. That whilst the average amounts of the public revenue of the United Kingdom, derived from taxation, has within the last sixty years ranged from 48,000,000*l.* to 80,000,000*l.*, the public expenditure during the same period, has ranged between 51,000,000*l.* and 74,000,000*l.*, and that whenever the expenditure has exceeded to any great extent the annual amount of revenue, a loan has become indispensable.

2. That whilst in the United Kingdom 84 per cent. of the expenditure is annually devoted to the maintenance of the forces and the payment of the interest of the public debt, leaving 16 per cent. only to defray all the charges for the civil government; in all the principal European countries, the proportional expenditure is about 56 per cent. for the forces and debt, and 44 per cent. for the civil government.

3. That in any attempt therefore to reduce the public expenditure of the United Kingdom, public attention must be principally directed to the largest controllable portion of such expenditure, viz., the portion devoted to the maintenance of the public forces.

4. That the Army expenditure of the United Kingdom, which during the great war, 1800-15, had reached an average of 25,000,000*l.* per annum, has, after a period of nigh forty years of peace, when it had been reduced to an average of 9,000,000*l.*, increased, since 1854, in consequence of the Russian, Persian, and Chinese wars, to an average of 13,500,000*l.*, and in these last years to 15,000,000*l.*; and that having regard to the present condition of politics, a condition of peace—not without fears of future troubles in Italy, Hungary, America, &c., the utmost reduction that may be anticipated in the expenditure in the next two or three years, will be to 10,000,000*l.* to 11,000,000*l.*

5. That with reference to the army expenditure, it seems desirable—1st. To reduce the army for home and imperial purposes by at least 20,000 men; 2nd. To open negotiations with the Colonial Governments with a view to their defraying the whole expenses of their military defences; so that for the future the United Kingdom shall only provide for the home defence, and for such colonial garrisons as are kept up for imperial purposes; 3rd. To increase the wages of privates and non-commissioned officers; and 4th. To make better regulations for securing the services of officers in receipt of pensions and half-pay.

6. That the navy expenditure, which during the great wars 1800-15, reached an average of 17,500,000*l.*, and which during nigh forty years of peace had been reduced to about 6,500,000*l.*, has, since 1854, in consequence of the wars already alluded to, increased to an average of 18,000,000*l.* per annum, and that having regard to the present prospects of European politics, the condition of the fleet, the increased cost of provisions, and the additional expense caused by the general introduction of steam power in the navy, we cannot anticipate a reduction in the navy expenditure during the next few years to less than 9,000,000*l.* or 10,000,000*l.*

7. That inasmuch as the cost of our forces constitutes so large a portion of our public expenditure, and the state of our forces is largely governed by the state of our relations with France and the great increase of the army and navy of that country, any negotiation which might be opened with the French Government for the simultaneous diminution of military forces to limits more in accordance with the amicable relations which now happily exist between France and Great Britain, and with the state of peace which we trust may be preserved throughout Europe, would be regarded with immense satisfaction, and prove a worthy compliment to the Treaty of Commerce recently concluded between them.

8. That it would be desirable to negotiate with all such persons as possess the right to annuities and pensions for eminent services rendered by their ancestors at very remote times, for the purchase of such annuities, and that for the future no annuity should be granted for periods exceeding the lives of the grantees.

9. That negotiations should also be entered into with religious communities now receiving grants from the State, with a view to a gradual extinction of such grants, offering them compensation whenever necessary.

10. That some saving may be made in the Diplomatic Service by reducing the number of missions in the German States, and converting the embassies of Turkey and France into missions of equal standing with those in other capitals of Europe and America.

11. That the present system of Compensation to Officers of

Courts of Justice, in cases of reforms in the laws and tribunals, is essentially erroneous, there being no implied contract with such officers to guarantee them from all contingencies which might affect status and income.

12. That although the expenses for the Civil Services exhibit an enormous increase within the last twenty-five years, from 2,580,000*l.* in the years 1835-40, to 7,600,000*l.* in 1860, the increase has been occasioned partly by a change in the method of accounts, and partly in consequence of the immense development of the resources of the nation, which necessitate more public supervision, additional public offices, and corresponding increase in printing, &c.

13. That the immensely increased votes for educational purposes, though administered most satisfactorily, fail to meet the wants of the poorer districts of the empire, where the help of Government grants would be most needed, and that for that purpose additional powers should be granted to the Committee of Council of Education to relax some of the rules respecting the condition of school buildings, correspondence with schools, &c., whilst some limits should be put to the grants, by confining them to schools which are not self-supporting.

14. That the classification adopted in the estimates for Supply Services is most unsatisfactory, and that it would be desirable to construct the finance accounts in such a way that they shall exhibit at a glance the whole expenditure under the various branches of the public services.

15. That it would be convenient for the nation, as well as for Parliament, if the accounts of the expenditure could be published at the end of each six months of the year; if the finance accounts could be made up to the 31st December of each year; and if the accounts with the estimates were delivered early on the assembling of Parliament.

On the need of economy in all the branches of public expenditure, I shall not dilate. No duty is more paramount, and no object more important than that of maintaining a perfect equilibrium between the revenue and expenditure of the nation, and no higher trust could be reposed on the executive than that of bestowing a strict and watchful care upon the public purse. This superintendence the heads of the various branches of public administration can alone efficiently exercise, and of them it is most solemnly required in this critical state of public finances,

RESULTS of the TRADE of the UNITED KINGDOM during the YEAR 1860; with STATEMENTS and OBSERVATIONS relative to the Course of PRICES since the Year 1844. By WILLIAM NEWMARCH, one of the Honorary Secretaries of the Statistical Society, and Editor of its Journal.

THIRD ANNUAL SERIES, in continuation of similar Collections for the YEARS 1858 and 1859.

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Pursuing the example established at the close of 1858 and 1859 as regards a review of Trade and Prices during each of those years, I have collected together in the following Paper similar statements, and as far as possible from the same sources, respecting the commercial experience of the United Kingdom during the year (1860) just closed. It is perfectly clear that the only conclusive and satisfactory mode by which we can arrive at a right understanding of the effects produced by the great extension of the Supply of and Demand for Commodities, and the increased supplies of Gold and Silver which distinguish the present time, as they have distinguished more or less all the years since 1850, must be by a constant and careful attention to the history of the leading commodities and the leading markets. This process is, no doubt tedious, and to some persons irksome, but the same objection has ever been urged against the patient care with which science has laid the solid foundation of its great results.

I.—Wheat and Grain Crops of 1860, and the Corn Trade of that Year.

Messrs. Horne and Watney, Corn Factors, London, report as follows in their Annual Circular:—

“ The year 1860 was the very opposite to the last three, and was one of continued anxiety with respect to our food prospects, the autumn of 1859 having been

so wet that, notwithstanding the great extent of drainage resorted to in these days by all careful farmers, no inconsiderable breadth of *Wheat land* was thrown out of rotation; then the early and long-continued winter of 1859-60, with its severe frosts, unaccompanied by its more agreeable snow mantle, destroyed the *Root Crops*; next came the injury to the *Hay Crops*; and, lastly, the almost uninterrupted rains up to the third week in December.

"The *North of Europe* seems to have suffered most from the influence of bad weather, while the *South generally*, as well as *Africa*, has been blessed by good, though not particularly bountiful, harvests. *America* had one of the finest and most abundant *Wheat crops* ever grown by her, but we are sceptical as to the fabulous quantities of Grain she is said to be able to send us, and the largest importation thence of Wheat and Flour into the United Kingdom was 2,239,722 qrs. in 1847. *Free Italy* has thrown open the trade in Corn, while *France* still struggles midway, trammelled with the ever uncertain sliding scale. A short interval of fine weather in November, 1860, allowed a considerable quantity of *Seed Wheat* to be got well in on the lighter lands, but the clays were not so fortunate, and we are sorry to say a large breadth of land remains unsown, and this remark applies to parts of Scotland. Farmers have found unusual difficulty in providing themselves with Seed Wheat, and we fear the nature of much of it will not stand the vicissitudes of an unpropitious winter or spring, should we have such.

Wheat.—"We fearlessly assert our belief that the crop of 1860 of *English* was, all things considered, the *worst we have seen these twenty-five years*. It has neither colour, strength, condition, weight, nor bulk, with some portion blighted and mildewed: and this is not to be wondered at, considering that Wheat can no more arrive at maturity without solar heat than a glacial mountain can remain in the sun's presence. Even the best runs are reported to make but an indifferent sack of Flour; and the worst samples are only fit for cattle food. The weights vary from 54 lbs. to 60 lbs. per bushel, although we hear of occasional samples as light as 50 lbs., and as heavy as 63 lbs. The best runs hitherto sold in the London market have averaged 60 lbs., while the inferior not above 56 lbs. per bushel. We estimate the *English crop* as deficient in the average weight, as compared with an average season, *fully 3 lbs. per bushel*; and with the fine harvests of '56, '57, '58, about 5 lbs. *per bushel*. This difference in average weight represents a *loss of nearly one million quarters*; but when we allow the further fair deductions for the extra quantities of moisture and bran, as well as for the less breadth of land under Wheat (which we have always maintained was the consequence of the wet autumn in 1859), we are of opinion we may estimate the Wheat crop of 1860 at *fully one-fourth deficient* of an average yield in Flour, and which deficiency we set down at *about four millions of quarters*. If, then, during the last four years of peace and plenty we have had an average annual importation into the United Kingdom of *six million quarters* Wheat and Flour, and had little left at time of the harvest of 1860, we shall certainly now require *eight million quarters* to keep us in the same position, even bearing in mind that should our next harvest be at the usual period, we shall only have to provide for about ten months' consumption, inasmuch as we began on the last six weeks later than usual. 1860 opened with an imperial weekly average price of 44s. 2d., and closed with 52s. 6d. The highest was 62s. 11d., the lowest 43s. 6d. The annual aggregate average was 53s. 1d. Foreign stock on hand is unusually large here and at some of the outports.

Barley.—"In *England* the breadth of land sown was decidedly large, but this crop has suffered equally with that described above, and much of it is unfit for malsters' use, in consequence of its being so dreadfully weathered, thin and light to the bushel, the weights varying from 46 lbs. to 52 lbs., with an occasional sample of 53 lbs. In *Scotland* the crop was good, though not so fine as that of the previous year. The crops in *Sweden, Denmark*, and along the *Baltic Coast*, were also more or less injured by the rains, but the quantities were an average. The *Danubian* are well spoken of as to quantity, but quality not equal to last year, *Odess* districts good in quantity and quality; *Asoff* not so good quality as usual.

and moderate yield. 1860 opened with an imperial weekly average price of 34s. 8d., and closed with 38s. 6d. The highest was 41s., the lowest 34s. 4d. The annual aggregate average was 36s. 6d. Foreign stocks on hand quite insignificant throughout the kingdom.

Oats.—"There was more than the usual breadth of land under this crop in *England and Scotland*, while in *Ireland* there was again a deficiency. Had the weather at harvest been dry, we should have had the finest crops grown since many years; as it is, we have the *worst in England we recollect to have seen*, the weights varying from 23 lbs. to 45 lbs. per bushel, and even heavier, while those of *Scotland and Ireland* are an average both in quality and quantity, though rather light in weight, *Denmark* had an average in bulk, but it was indifferently harvested and of light weights. *Sweden* had upon the whole an average in quality and quantity. *Hanover, Holland*, and all the *German Baltic Provinces*, decidedly very bad. *Russia*, with the exception of those districts which supply *Archangel*, is likewise represented as under an average in quantity and quality. 1860 opened with an imperial weekly average price of 21s. 5d. and closed with 21s. 8d., the highest was 28s. 2d., the lowest was 21s. The annual aggregate average was 24s. 5d. Foreign stocks on hand here and elsewhere are unusually small, and the local consumption of this grain increases considerably year by year.

"Beans and peas are both wretched crops, and some of the former were yet in the fields at the middle of December.

"Potatoes in *England* are as bad as in the worst previous year, viz., 1846; in *Scotland* good, and in *Ireland* much better than was expected during the period of the continued rains. The highest average price of this unmarket was 250s. per ton in 1847, and the lowest was about 50s. per ton in 1834. The *French and Belgian* crops decidedly bad—*German* pretty good.

Flour.—"Many of our most experienced millers have been deceived by the small produce obtained from a given quantity of the new English Wheat; and the quality of the Flour was hitherto so inferior, that it has been necessary to mix the unusually large proportion of three-fourths of the driest new or old Foreign Wheat, and that of the brightest colour obtainable. The quality of the *American arrivals* has been much approved of, and as these have been sold at comparatively low rates, they have gone freely into consumption. *Spain*, either in consequence of her good harvest, or facilities of railway transit, or from both causes, has recommenced her supply of fine qualities, which have been specially welcomed. The year commenced with a small stock of Foreign on hand, but has departed leaving an unusually heavy one."

II.—Colonial and Tropical Produce:—Tea, Coffee, Sugar, Fruits, Spices, Tobacco.

I quote the following passages from the well known and elaborate Annual Circular of Messrs, Joseph Travers and Sons, St. Swithen's Lane, London:—

"Although the changes in the Money Market in 1860 have been unusually frequent and extensive, and the Rate of Discount, which began at $2\frac{1}{2}$ per cent., has closed at 6 per cent., the course of trade in almost all departments has been, as far as legitimate business is concerned, exceedingly satisfactory. The Declared Value of our *Exports* has been about $3\frac{1}{2}$ per cent. in excess of the highest total previously reached, and the general consumption of *Imported articles* has been fully equal to anything that could have been anticipated, looking at the check sustained from the failure of the harvest.

Tea.—"The political events affecting this article during the past year have been of a marked character; commencing with agitations and speculative fluctua-

tions, consequent on a threatened continuance of the *old duty*, and followed eventually by its not only being levied, but made *heavier* by the addition of a quarter per cent., as well as by the fresh charges of a *penny per package import tax*, and *ten shillings per cent.* on all removals in Bond. This additional taxation was the more bitterly felt by the trade after the repeated pledges of reduction given and broken by more than one Chancellor of the Exchequer, and was submitted to only from the feeling of confidence inspired by Mr. Gladstone's other free-trade measures.

"Our disastrous reverse in *China*, in the attempt to force the passage of the Peiho, and our recent brilliant successes, the occupation of Pehtang, and of the Peiho forts, the capture of Tien-tsin, and finally Peking itself, are matters that have been of universal interest, and belong now to history. They *have had and will have* a particular effect upon the *Tea Market*.

"The year 1860 opened with a brisk market, speculators and the trade buying freely. *Common Congow* advanced rapidly from 1s. 3½d., the price at the end of 1859, to 1s. 5½d., and maintained its value until about the middle of *February*, when the news arriving of considerable shipments, and large sales (without reserve) being continually brought forward, prices sank under the depressing influence, and receded gradually until *May*, when affairs in China becoming more complicated, and the question of *supply* more problematical, a better feeling sprung up, and a good business, lasting through *July*, followed.

In *August*, on the unexpected receipt of the news that the shipment of New Season Tea had commenced at Foo Chow, the market became very flat, and operations continued on but a limited scale, until the arrival of the "*Falcon*," on the 28th *September*, quickly followed by the "*Ellen Royder*" and "*Chrysolite*." These vessels brought some of the first class Chops of the season, which were at once put upon the market. The *moderate prices* asked, when compared with those of the previous year, induced active transactions.

With respects to the prospects of the coming year, 1861, everything, we think, depends upon the way in which our representatives in China are left provided with powers to force the Government there to respect the conditions of the treaty.

Coffee.—"In the *Autumn* of 1859, Coffee, especially Brazil, had risen to a *very high price*, in consequence of the *small growth* of that kind in 1859-60; and though the exports from Rio had been brought to a fair average by the accumulations of preceding years, kept back in the interior, yet the *consumption* in the three years ending December, 1859, was found to have *somewhat exceeded the production* or arrivals in the chief ports of Europe and the United States. Brazil furnishes about *seven-sixteenths* of the general wants, but is little used in this country. It constitutes about *four-fifths* of the American, *one-fourth* of the French, and one-third of the Continental consumption.

"As no sensible increase of growth in other colonies, likely to affect the general supply of about 300,000 tons, could be looked for, Coffee threatened to rule this year inconveniently high; but early in *January* reports from Rio announced the probability of a *very large crop* for the *present season* of 1860-61, namely, upwards of 4,000,000 of bags, or nearly 300,000 tons, and though it was soon felt that an unusual proportion of this large mass could find its way suddenly to Rio, much less to European ports, the belief in this increase greatly affected the market throughout the year. The possibility of excessive supplies, sooner or later, induced extreme caution, even whilst steadily decreasing stocks demonstrated the great wants of retailers and their customers. *Coffee* may be said to have been all last year, 1860, a *scarce commodity*; but few important transactions were entered upon without the certainty of sales, by telegraph, almost concurrent with the purchases. Upon the whole, prices have fluctuated to no great extent, the year closes with further diminished stocks.

"The production of the other Coffee colonies has for some years not undergone any material change. The kinds furnished by *Ceylon*, *Java*, *St. Domingo*, &c., in all about 180,000 tons, may be assumed to supply our own, and the better or

stationary class of consumers, who represent a steady but not a rapidly augmenting demand. Hence these kinds, which *advanced but little* in the Autumn of 1859, have, during the past year, improved to the extent of 4s. to 6s., whilst *Brasil* closed at the prices current in January, 1860.

"As the *United States* use nearly *one-third* of all the coffee grown, the markets of that country are carefully watched. This year, in expectation of large arrivals and low prices at Rio, they are constantly under-supplied, the deliveries, in consequence, being so small, that, by the end of November, they had fallen off about 20,000 tons.

"The *fluctuations in prices* in our *English markets* have been numerous, but neither sudden nor important. For a short time *Brasil Coffee* advanced 1s., whilst other sorts declined as much, and both lost another shilling in the early part of *February*. The smallness of the Dutch sale then advertised gave a firmer tone to the market; and that sale going off unexpectedly well in *March*, a smart rise of 8s. in most kinds followed, establishing about the highest point reached in the year for *Brasil* sorts. *Native Ceylon* experienced a greater advance, recovering from the depression in *February*, when the quotations were 56s. 6d. to 62s., 63s., to 65s., but part of this advance was lost in *April*, when Italian affairs and the pressure of the money market affected all business. In *May*, dulness prevailed, but towards the middle of June prices recovered, native *Ceylon* being now 60s. to 62s., and by the middle of *July*, 62s. 6d. to 64s. 6d., *Brasil* being again up to nearly the high point touched in *April*. Another reaction brought native down to 1s. to 1s. 6d., but in *September*, the Dutch sale going on satisfactorily at a slight advance on *April* prices, markets stiffened, and *Native* reached 68s. to 64s. 6d., with a further improvement in *October*, when these and plantation kinds had in part advanced 8s. to 9s., upon the quotations twelve months before. There has not since been any material change in these qualities; but *Brasil* floating cargoes, which constitute the large business in that description, have receded 3s. to 4s., and are now not dearer than at the beginning of the year. The official returns are not yet complete, but imports in British ports will have been about 32,000 tons, against 29,100 tons in 1859; exports 19,000 tons, against 13,200; and the *stocks* on the 31st ultimo, 7,700 tons, the *consumption* having been about 16,000 tons, against 15,388 tons, in 1859; and though this shows an improvement, the actual consumption has, in fact, not varied much for several years, having been even a little larger as far back as 1852 and 1854.

Sugar.—"A very large business was done in sugar in the four weeks ending in the middle of *December*, 1859, the transactions in that short period amounting in London, to upwards of 40,000 tons. During the close of the market, purchases were resumed, and continued, to some extent, in the early part of *January*, prices further advancing about 2 per cent. A great part of this business was *speculative*, based on the *ascertained deficiency* of the produce of *Louisiana* and *Brasil*, (amounting, finally, to near 150,000 tons,) but also on the expectation that *our duties* would be reduced. The buoyancy, however, soon subsided, and upon the Bank raising the rate of discount from 2½ per cent. to 3 per cent., speculators began to realize, and a considerable reaction seemed unavoidable. In the beginning of *February* the rate of discount was raised to 4 per cent.; but at this time rumours of intended reductions of the duties in France, of a Commercial Treaty with, and hope of the admission of our refined sugars into that country, promoted a temporary tendency to steady prices, though the reduction of our own duties was declared impossible for the current year.

"From the end of *January* to the beginning of *July*, sugar was, with slight interruptions, a *falling article*, more especially throughout *April* and *May*, the Bank having, on the 29th *March*, raised its rate to 4½ per cent., and, on the 12th *April* to 5 per cent. Money, about this time, for a few days, was singularly scarce, owing entirely to exceptional circumstances. The pressure soon subsided, and the rate was reduced on the 24th *May* to 4½ per cent., and subsequently to 4 per cent., at which it continued till the 8th of *November*. Sugar, however, continued in

a state of great dullness, and, by the middle of *June*, prices had receded 2s. to 3s. from the quotations of the early part of the year.

"In *October* it became evident that supplies, for some months, must be short, and that stocks, towards the close of the year, would be much reduced. Brewers, also, were supposed to want large quantities, in consequence of the high price of malt. The trade, as well as refiners, began to buy rather freely, and speculators operating prices advanced by the end of the second week in November, 8s. to 4s. above the lowest quotations. This improvement, however, was not long maintained, the rapid advance of the Bank rate of discount to 6 per cent., causing the excitement to subside, and prices from this time to the close of the year gradually declined.

"As the general result of our investigation, we are bound to state that *Sugar* has not, in 1860, fulfilled the prospects which it seemed to hold out at the beginning of the year. When the returns are complete, it will be found that the consumption of this country has experienced no increase, and that such has been pretty much everywhere the case; but no accurate statement can be furnished on this point before the end of February. As it may be assumed that *England* rules the European markets, it is hardly necessary to state that *Sugar* on the Continent has agreed with the preceding report. In *France*, notwithstanding a very large reduction in duties, the consumption, during the eleven months of which we have returns, has not materially exceeded last year, and is less than during the same period in 1858. *Germany, Austria, and Russia* use, almost exclusively, the produce of *Beet*, which, from the growth of 1859, gave an ample supply. The considerable imports of *Java*, and other Colonial *Sugar*, into *Holland* and *Belgium* are mostly re-exported in the shape of *refined*, partly to our ports, but chiefly to the Mediterranean.

"Notwithstanding the large deficiency of *Louisiana*, the United States have had an ample supply, with a very heavy stock over at this time; and though a very large increase of consumption has been in progress, late disastrous events will probably prevent the realisation of the sanguine expectations indulged in by the holders.

"By the last accounts, prices at New York were much below ours, and about 4,000 tons have been shipped to Europe, chiefly to British ports.

"With regard to the ensuing year, 1861, there is no doubt that the supply of *Cane Sugar* will be ample, the excess promising to compensate for any deficiency in the yield of *Beet*, which is now reported to be, in *France*, 25,000 tons, or about one-fifth short of the previous season, owing to the unfavourable state of the weather during the summer months, a similar result being expected in *Germany*. We set a less value on these reports, since we are led to expect a large increase of from 40,000 to 50,000 tons from *Cuba*, a good growth in *Louisiana* and *Brazil*, excellent crops in our West Indian Colonies, and an increase of about 25,000 tons from *Mauritius*. Some attention is also to be paid to the produce of *Madagascar*, whence a few rather large parcels have arrived in *France*, and to that of *Siam*, to which country a great deal of sugar machinery has been sent, as well as to our own rising Colony of *Port Natal*. It is in our recollection that *Java* exported, in 1825, only 1,000 tons, *Mauritius* 3,000 tons. In 1843 *Java* had advanced to 55,000, and the *Mauritius* to 23,000 tons. At present *Java* furnishes upwards of 100,000 and the *Mauritius* near 140,000 tons. We are, therefore justified in believing that where *Sugar Culture* can be carried on under favourable circumstances, it may and will be extended with amazing rapidity. The entire production of *Cane Sugar* was estimated, in 1843, at 700,000 tons, and is now about double that quantity.

"Of *Beet*, the growth in 1843 was 55,000 tons, and has since been raised to 420,000, but being the result of a system of protection, it comes hardly within the category of the natural course of events.

"With regard to the value of *Sugar* during the present year (1861), we do not look for any material alteration, expecting, upon the whole, prices to rule moderate throughout 1861. The prices of *Bread* and *Meat* threaten to continue high, and this is not favourable to a rapid progress of consumption, whilst as already stated,

supplies promise to be abundant. It is to be hoped Government will not keep us long in ignorance as to duties, uncertainty, especially if much prolonged, greatly impeding the even course of commercial operations, particularly in an article like Sugar, distributed amongst the public by thousands of comparatively small traders. We retain our conviction that *one rate only* is the best and the most profitable, not only to the consumer and the trader, but also to the revenue.

"The *Refined Sugar Market* has undergone frequent slight changes of prices, fluctuating between 49s. 6d. and 51s. 6d. for brown lumps; often altering without reference to the value of the Raw Material.

Fruit.—"The large reductions in duty in February (1860) have proved most successful in their results, and the year closes with an increase of consumption in most *Dried Fruits*. Prices have been favourable to the public and yield a better profit to those engaged in the trade than has latterly been the case.

"In *currants prices* are low beyond precedent, the supply abundant, and the consumption fourfold that of either 1856 or 1857.

Currants.—"The alteration in duty in February (1860), from 15s. 9d. per cwt. to 7s. (with a subsequent addition of $\frac{1}{2}$ per cent. to this rate), created some speculation, and an *advance* of 4s. to 5s. took place. Thus the duty paid price, after the reduction in duty had taken effect, was about 3s. lower than the duty paid price previous to the change.

"Before *June* this rise had been lost, and falls were effected in far lower terms than ordinary. Good currants sold at 25s., and damaged at the unprecedented price of 8s. to 16s. per cwt.

"In *September*, the first arrivals of this season's crop were received, and, owing to the *large quantity expected*, prices opened at 40s. to 42s., a low point when compared with that of ordinary seasons, but too high considering the value of the large stock of the previous year's produce on hand, the good quality of which made it a better purchase; thus the consumption fell largely on the old stock, and *New Currants* receded, being quoted, on 22nd September, as low as 26s. to 28s., *Old Currants* falling, but not in the same proportion.

"The market has since been quiet, since October, 1860, with a probability of remaining so.

Valencia Raisins.—"The price fell steadily from the commencement of 1860, until August, at which time quotations were at 22s., as compared with 40s. on 1st January, both prices *including* duty, which, on 1st January, was 10s., and since February, 7s., with $\frac{1}{2}$ per cent. additional.

"The variable nature of this trade may be gathered from a knowledge that a loss of from 24s. to 25s. per cwt., was incurred by the importer of nearly all the fruit thus sold; but these losses, and the prospect of a large supply during the latter months of the year, induced caution, and an opening price of 35s. to 36s. was named on the arrival of New Valentines in September.

"This satisfactory result the trade have largely to thank themselves for, as it has been very mainly brought about by the determination exhibited by them since 1859, to withstand the bad system of purchase and shipment in Spain.

Figs.—"The effect of the reduction in duty from 15s. 9d. to 7s. (with $\frac{1}{2}$ per cent. added), is very perceptible in the increased variety of growth of this fruit, figs being grown in all parts of the Mediterranean.

Spices, Cassia Lignea, Cinnamon, Ginger, Nutmegs, Mace, Pepper, Pimento, Arrowroot, Sago.—"At the commencement of 1860, there was a brisk demand for most descriptions, and prices, generally, had an upward tendency. On the announcement of the Budget, abolishing the duty on many descriptions, a good deal of speculation ensued, and rates rapidly advanced; but there was an almost entire absence of orders for exportation at the advance, and, with larger importations, a

reaction soon occurred, and quotations, in some instances, are now lower than for years past. The demand for the Home Trade has been good.

Ginger.—"The stock of *Jamaica*, at the commencement of the year, was very small, and prices ruled high until July. From the coldness of the season, the demand was much less than usual, and there was a decline in value until October, when more firmness was shown. Quotations are 20s. per cwt. lower than last year.

Nutmegs.—"On the announcement of the budget, there was a large business in this article, principally on speculation, and an advance of fully 4d. per lb. took place, but for a short time only, a rapid decline soon following, which continued until June, when a slight reaction occurred; from that time more steadiness was shown until November, when large arrivals caused the Market to become dull, and a further decline of 3d. per lb. was established.

Mace.—"There was much speculation on the duty being removed; prices advanced 6d. per lb., but as the demand was not equal to the supply, the improvement was soon lost, and this article is now lower than at the corresponding period of last year (1860).

Pepper, Black.—"In January (1860), the demand was very brisk, and prices advanced. From this time, until October, much steadiness was shown, when large arrivals caused a slight decline.

Saltpetre.—"The imports show the very large decrease of nearly 5,000 tons on last year. The demand has been considerably smaller; prices varied but little until August, when, in consequence of the small quantity afloat for this country, a brisk trade ensued, and an advance was realized. Since then the market has been dull, with a downward tendency."

Messrs. Horatio N. Davis and Co., report as follows respecting—

Tobacco.—"At the opening of the stock of North American growth in Europe was about 9,000 hhds. above an average of the nine preceding, arising from a succession of large crops. Holders showing anxiety to sell, buyers were deterred from operating except for immediate consumption, and at concessions, until the summer, at which period prices had exhibited a decline of 1d. to 2d. per lb., and no doubt would have receded still further had not long-continued drought and subsequently unpropitious weather indicated a diminished, in lieu of an abundant yield, which was expected earlier in the season. As the course of markets was dependent upon the extent of production in 1860, and it being pretty well ascertained towards the close of the year that it had been comparatively small, a reaction ensued, and prices recovered to the point they were at on the opening of the year, not only in the United Kingdom, but in most of the continental markets of Europe, notwithstanding the receipts at the principal Inspections in the United States proved to be 23,800 hhds. more than in 1859. The exhaustion of other growths has increased the consumption of those of the United States, not only in Continental Europe, but in this kingdom. By those well informed the American crops in 1860 are estimated at 185,000 hhds., which is about 50,000 hhds. less than those secured the preceding year, but rather more upon the average of nine. The existing stocks in Europe and America, together with the last crop, estimated at 185,000 hhds., form a total of 313,000 hhds., which, taking the consumption at the rate recently ascertained, shows a lessened supply of about 80,000 hhds. upon that exhibited at this period last year, to meet the requirements until another crop can be available. The stock now in Europe indicates no scarcity, as it is 60,000 hhds. at present, or 8,000 more than at this period last year, and which increase is chiefly in this country. The extent of the production this season will constitute an important item in the regulation of the future. At present no opinion can be formed to what degree the agricultural interests may be jeopardized by the political events now pending."

III.—*Raw Materials:—Wool, Silk, Oils, Timber, Linseed, Leather, Iron.*

Messrs. Bowes Brothers (of Liverpool) report as follows as regards—

Wool.—“The *Wool Market* now presents many features similar to what it did at the close of 1859. Stocks are light, consumption large, and prices high. For the future the parallel is far less favourable. Although the Chinese war is over, and that market again open to our goods, and though Europe is nominally in a state of peace, the increased value of food and money, the uncertain position of European politics, and still more, the unsettled condition of our best foreign customers, the United States, all contribute to produce a state of things which leaves the market open to unfavourable influences; but it must be admitted that the *high range of value now ruling for Wool is entirely the legitimate result of consumption having encroached too closely upon supply and the main cause of high prices is still in force.*

“During the year now closing the *Wool Market* has usually been steady, with a few intervals of dullness, and prices, which have fluctuated *about 10 per cent.*, are in most instances on a par with those quoted in our last annual circular, the chief exceptions being *bright-haired combing*, domestic fleeces and competing descriptions of foreign, these having *advanced 1d. to 1½d. per lb.* The chief scarcity is of sound long-stapled wools, prices of which have advanced in a greater ratio than those of short tender ill-grown classes. *Canada* has this year supplied us *via* the United States, with 3,000 bags of a very suitable character for our market, but which *Wool* admits of a considerable improvement in growth, as well as greater care in classification. *California* and other countries on the *Pacific* promise to be large producers, and possess varieties of climate and other requisites calculated for raising many descriptions; and it is a question for farmers, where herbage is abundant and other conditions suitable, whether they may not do better by growing a large fleece of a breed approximating to the *Leicester* rather than a small one of the *Merino*.

“Many other countries in various parts of the world—particularly Northern Africa, Turkey, Egypt, Russia, Portugal, the East Indies, &c.—possess breeds of sheep the *Wool* of which, by the introduction of suitable rams, or by judicious crossing with the best of what they already have, might be vastly improved and rendered adaptable to many additional purposes. Care should be taken to eliminate those sheep whose white wool is spoiled by a sprinkling of thick coloured hairs; the wool should be sent to market more free of burrs, seeds, and filth; the matted, inferior, and coloured fleeces should be packed separately from the good white ones. At the same time an indiscriminate growth of long wool is not at all desirable, for the climate and herbage of some countries—which eminently favour the *merino* and *mestizo* breeds (for which *Wool* there is a sufficient and increasing demand) would prove entirely unsuitable to a larger kind. The object of these remarks is merely to suggest improvement in cases where little attention has been paid, and where much has been left to nature or chance.

“The *import of Wool into the United Kingdom* during the past eleven months shows an increase of 10 per cent. on the corresponding period of last year, and an increase of 22 per cent. on the average of the *five years* preceding the present. The quantity *re-exported* during the eleven months shows an increase on 1859 of 8 per cent., but including the export of domestic the increase is 10 per cent. on 1859; on the average of 1855 to 1859 a decrease of 5 per cent. is shown. Assuming the growth of domestic to be unaltered, though there is good reason for believing that last season there was a *decrease in consequence of bad weather*, the total balance of foreign, colonial, and domestic retained for home consumption during the last eleven months is 25,000,000 lbs. in excess of the average of the corresponding period of 1855 to 1859, yet stocks are lighter than at the close of

1859. With the exception of East India Wool, of which about 17,000 bales will be offered at auction along with probably 8,000 bales sundry low Wools, from the middle to end of January, the stocks of Wool at Liverpool are almost exhausted, and supplies much required."

Messrs. P. W. Ronald and Son, of Liverpool, also report as follows on the *Wool Trade* :—

"The Wool Trade, on the whole, has been in a very satisfactory and healthy state. In the early part of the year political events abroad, and, to some extent, also at home, and subsequently serious apprehensions for the harvest, had a somewhat depressing influence, and induced all parties to act with great caution; this feeling has continued more or less throughout the whole twelvemonth, and greatly tended to impart to our trade that stability and soundness which so favourably distinguishes it at present. The exports of Woollen Manufactures show again an increase, as compared with the previous year, amounting to upwards of 1,000,000*l.* more than in 1859, hitherto the largest year. The consequence has been a steady and profitable employment of the manufacturing population in this branch, which has thus been enabled to become again good customers to the home trade. The raw material, so far as regards the yield of last year's clip of home growth, has proved materially deficient, owing to the severe and protracted winter, and consequent mortality among sheep. This deficiency has in some degree been supplemented by an increase in the imports of colonial and foreign Wools, which are unprecedentedly large, exceeding those of the previous year by about 58,000 bales, or 12,000,000 lbs. The exports of colonial and foreign Wools have also been larger than in 1859 by about 600,000 lbs., and those of home-grown Wools by no less than 2,500,000 lbs., owing, no doubt to the alteration in the French tariff."

From an elaborate review of the Trade of the year in the "*Manchester Examiner*," of 1st January, 1861, a newspaper standing in the first rank of the provincial press, I compile the following statement of prices (per lb.) of two leading kinds of *English Wool* in the three years 1858-59-60.

English Wools, per Pound, 1858-59-60.

Years.	Lincoln Hogs.				Middle Wethers.			
	Jan.	April.	July.	Oct.	Jan.	April.	July.	Oct.
1858	d. 15½	d. 13½	d. 16	d. 19	d. 14	d. 13	d. 14	d. 16
'59	21	19	20	20½	19	17	18	18½
'60	21½	21½	22½	22	19	19½	20½	20

As regards *Lincoln Hogs*, the average price in 1858 was 16½*d.*, in '59 was 19½*d.*, in '60 was 22*d.*

From the Circular of Messrs. Bowes Brothers (of Liverpool), I compile the following statement of *Imports* of Sheep's Wool, 1856-60 :—

SHEEPS' WOOL.—Imports (in Bales) into United Kingdom, 1856-60.

[000's at unit end omitted—thus 46, represents 46,000.]

Imported from	1860.	'59.	'58.	'57.	'56.
New South Wales	46,	44,	51,	47,	59,
Victoria	75,	65,	61,	59,	60,
Other parts of Australia	62,	61,	50,	53,	47,
<i>Total Australian</i>	183,	170,	162,	159,	166,
Cape	56,	48,	55,	49,	51,
Germany	14,	35,	32,	12,	22,
Portugal	23,	13,	6,	10,	8,
West Coast S. America and } Alpaca	69,	66,	49,	60,	52,
India	63,	45,	51,	56,	45,
Russia ..	21,	27,	16,	24,	4,
	246,	234,	209,	211,	182,
All other Foreign, &c. places	54,	39,	47,	63,	44,
<i>Total Foreign, &c.</i>	300,	273,	256,	274,	226,
<i>General Total</i> bales	483,	443,	418,	433,	392,

The increasing supplies here shown from South America, India, Russia, and Portugal, are remarkable and gratifying.

Messrs. Durant and Co., London, report as follows respecting—

Silk.—"In China Silk a *diminished import* of 9,000 bales, and a *diminished delivery* of 13,000 bales; in Canton Silk, a diminished import of 450 bales, and a diminished delivery of 600 bales; in Chinese Thrown Silk, a diminished import of 1,100 bales, and an increased delivery of 75 bales; in Japan Silk, an increased import of 7,200 bales, and an increased delivery of 5,100 bales; in Bengal Silk, a diminished import of 1,300 bales, and a diminished delivery of 4,000 bales; in Bruttia Silk, a diminished import of 130 bales, and a diminished delivery of 140 bales; in Persian Silk, an increased import of 800 ballots, and an increased delivery of 1,200 ballots; in Italian Silk, a diminished import of 850 bales, and a diminished delivery of 800 bales. So that if by way of simplifying matters we include *Canton and Japan Silk* under the head of *China*, and to all intents and purposes it is right so to include them, we have a *diminished import and delivery* or consumption in all classes of Silk except Persian, at best an insignificant source of supply. The *total stock* shows an increase of 5,000 bales, but this increase is less by nearly 3,000 bales than the excess of imports of new Silk from China since the commencement of the season as compared with 1859, and this excess too has all arrived within the last fortnight, so that we see at once how closely *consumption has kept pace with import*, and how it has happened that in a year beyond parallel, except in years of general financial and commercial crisis, for the harassing and perplexing difficulties with which our manufacturers and throwsters have had to contend, prices have been maintained at so high a range.

"Another point, too, worthy of notice is that as the natural result of the heavy dragging and disappointing character of their trade, and their consequent utter want of confidence, the stock in the hands of all consumers is small beyond precedent, so that with any return of general confidence, this excess would be of small

importance. But, then, whence may we look for the ground of this improved confidence? At present we fear it exists only in the fact of last year's trade having been so wretchedly bad, and the limited preparations making for the spring. The cause of that wretchedness it is perhaps little less difficult to trace, but it unfortunately existed. Our export of manufactured goods was equal to that of preceding years, and our imports scarcely greater. A change of fashion may have affected one branch of the trade, and that not an unimportant one; scanty supplies and consequent high prices, doubtless crippled consumption and checked enterprise, but these are scarcely sufficient to account for the utter want of life that pervaded the trade for the entire year. Many things were against us, especially the weather, and the state of uncertainty as to what might result from the removal of all duty upon foreign goods, but these may be expected to pass away, and with increased supplies of raw material, which may fairly be calculated upon, all may yet go well again—and may we not reasonably hope that the result of 1861 will enable us to forget its miserable predecessor.

"We might mention the course of prices as one of the great annoyances of our consumers, but it may have been rather the effect than the cause of their bad trade. From the middle of January to the middle of May we had a continually *drooping market*; no great fall, never exceeding 10 per cent., but continually drooping prices. Then with reported troubles in China, and fears that the Italian Raccolto was again going badly, there was a rapid rally to the highest prices of January, and with the arrival of the new silk early in September these were slightly exceeded, and so remained with slight variations, still generally with a drooping tendency, till the last few weeks. They may now be quoted at about the lowest point of the year, except for quite the 'classical chops' of China Silk.

"The chief feature of the year, and almost the only feature, was the *importation from Japan*—a most welcome and seasonable addition to our sources of supply. The only drawback to its advantage is the very small "breaks" in which it comes forward, but this is comparatively unimportant, and will no doubt be remedied in time. The grand point is, that it promises to be an increasing supply, and that the nature of the silk is intrinsically good and much of it of a size to render it especially available."

And the following account of the same article is given by Messrs. H. Waithman and Co., of London:—

"The past year, 1860, has been one of more than usual importance to the Silk Trade, and manufacturers have throughout had much to contend with. The *French treaty*, so suddenly arranged, found them with large stocks and exposed to unprotected competition with the foreigner; this and the unseasonable weather which has prevailed have proved very detrimental to the profitable realization of their fabrics. The *riband trade*, in addition to the above adverse influences, has had to contend with a serious alteration in fashion; hence the misery and destitution which have visited Coventry and its neighbourhood, and elicited from the charitable public such vast and well-bestowed contributions. To the future our manufacturers naturally look with considerable anxiety; but, with a moderate amount of enterprise and energy, they surely have little to fear. China Silk, the great staple, we can buy cheaper than the foreigner, and the price of labour, in which there has hitherto been so great a disparity, is rapidly becoming more equalized. To importers the past year has been profitable, tardy supplies and scanty stocks having combined to support a high range of prices. The demand for export throughout the year has been good, and the falling off in the deliveries must be attributed solely to the diminished requirements of our home trade. The *fluctuations in prices* during the year have *been unimportant*."

Messrs. Rose, Graham, and Wilson (London) state as follows:—

Oils.—"The retrospect of our markets for 1860 is a *pleasing one*. Our particular branch of trade was unusually exempt from anything approaching to

mercantile embarrassment, and the anticipation expressed that it would prove "a good and prosperous one" has been fully realized; notwithstanding speculative operations (*tallow excepted*) have been on a smaller scale than usual, prices of most descriptions of produce with which we are connected gradually advanced and *have now reached rates calculated to stimulate production and shipments from all parts in the spring*, meantime we begin the year with stocks below an average, which will tend to make any reaction which may take place more gradual and less felt. Should no political events on the Continent intervene to prevent it, we may again look forward with confidence to a large and substantial trade.

Linseed Oil.—"The production throughout the year was in excess of consumption, and the trade has been a dragging one, although a large quantity has been exported. From *January to July* prices ranged from 27*l.* 15*s.* to 28*l.* 15*s.* per ton, from *August to November* 30*l.* to 30*l.* 10*s.* The market is now quiet at 28*l.* 15*s.* We estimate the *make* throughout the kingdom for the year at 65,000 tons, against 55,500 tons in 1859 and 42,000 tons in 1858; the quantity exported at 33,700, of which 19,500 were from Hull.

Oilcakes.—"Our home made was considerably in excess of former years, so likewise was the importation of foreign into the United Kingdom, being 97,000 tons (of which we have scarcely any stock on hand) against 90,000 in 1859 and 80,000 in 1858, showing the growing appreciation on the part of feeders for artificial food. The importation of linseed cakes has been principally from America. *Rape and Oil Seeds*.—The importation was unusually small. The continental *rape* crop, too, was a very unsatisfactory one, both as regarded quantity, quality, and condition. In consequence of such a deficiency prices advanced rapidly throughout the year. *Rape and seed oils* continue to sustain the prominent position in our markets they have held for some years past, and, independently of a large home make, 9,500 tons were imported into the kingdom last year, much to the diminution of the consumption of fish oils for burning and other purposes.

Olive Oils.—"In the early part of 1860 it was feared the importation would be short through reported injury to the crops. Such has not proved to be the case, as supplies were in excess of 1859, and about equal to 1858.

Cocoanut Oil.—"Not only was the importation into the United Kingdom short, being 8,500 tons (of which 8,100 tons came to London), against 9,600 tons in 1859 and 8,755 in 1858, but the export was in excess of former years—say 7,200 tons, against 6,150 and 5,100 the two previous ones.

"*Palm Oil*, influenced by *tallow*, has ruled at high prices, although the import was in excess of the year previous. Imported into the United Kingdom in 1860, 34,000 tons; 1859, 28,800 tons; 1858, 38,000 tons; 1857, 38,600 tons; 1856, 35,000 tons; 1855, 40,500 tons. In January 45*l.* 10*s.* per ton was the value of Lagos, in November 47*l.* 10*s.* to 48*l.*, now 47*l.* The stock in London is 1,450 tons.

Fish Oils.—"Compared with former years there was a great falling off in the importation of sperm; into London only 3,000 tons were received against 5,353 in 1859, this great deficiency naturally enhanced the value, and led to the adoption of substitutes. From 94*l.* per ton in January, prices gradually advanced to 108*l.* in September, since then it has declined to 102*l.* to 103*l.* The consumption for the year was 4,219 tons, and we begin this with a stock of only 456 tons against 1,675 tons this time twelvemonths.

Whalefins.—"We had a very short importation last year, only 75 tons (exclusive of about 80 tons, the produce of our own Greenland and Davis' Straits whale fisheries). Prices have varied little for months past. Our stock is 45 against 62 last year.

Naval Stores.—"There was a falling off in the importation of rough turpentine into our port last year, and a corresponding increase in that of foreign manufactured spirits, which made the trade of distillers an unsatisfactory one. We begin the year with a stock of 3,306 barrels of rough and 8,053 barrels and 51 puncheons of spirits."

In connection with the *Oil Trades*, I print in a note at foot of the page an extract from the City Article of the "Times," of 1st February, 1861, describing the discovery in America and actual introduction into use of a new kind of Mineral Oil, called *Petroleum*, or *Rock Oil*. If the statements now made should be even partly confirmed, the extensive branches of commerce connected with the supply of Oils, will undergo rapid change.*

* "Annexed is a communication containing some precise particulars of the sources of production in America of the *Petroleum*, or *Rock Oil*, which promises to exercise a most important influence in adding to the wealth of the country, and also in improving the traffic of the several lines of railway over which it has to be transported. The only question regarding the worth of the discoveries seems now to relate to the probable permanence of the yield. If the experience in this respect should be satisfactory, the annual money value of the article is likely to rival that of some of the richest branches of existing industry. The railway lines which seem at present to be most interested in the matter are, first, the Atlantic and Great Western, a new road which connects with the New York and Erie; and, secondly, the Great Western of Canada, several wells being alleged to have been found on the flats of the Thames about a mile from Bothwell Station on that line. For a long time similar *Oil deposits* are known to have existed on the banks of the Irawady, in Birmah, but they are worked as a Royal monopoly. The belief is that they have always yielded steadily, and commanded a good market, notwithstanding the absence of facilities and enterprise in that region, and any information that might be furnished with regard to them would now be peculiarly opportune:—

" 'Erie, Pennsylvania, United States, Jan. 3.

" 'Sir,—From a recent paragraph in your City Article, I am glad to find that Petroleum, as a new item of American commerce, is likely soon to attract the notice in England its importance demands, and I write to define correctly the districts of its production, and to furnish some additional information. If you have Colton's, or any other large map of Western Pennsylvania, you will observe that the place called Union Mills is situated in Erie county, Pennsylvania, instead of New York State, and that Oil Creek, a branch of the Allegheny river, has its origin a few miles south of Union, and discharges its waters in the Allegheny, at the distance of about 80 miles. Ever since my earliest recollection (thirty years or more), and for 'time whereof the memory of man runneth not to the contrary,' Oil has been obtained from the surface of the water of Oil Creek in eddies, by spreading out a woollen blanket on the water and then wringing out the Oil, and it has been used for medicinal purposes, by external applications, for rheumatism, &c., and sold under the name of 'Seneca Oil,' from the Seneca tribe of Indians, who at one time roamed over this part of the State. About eighteen months ago a Mr. Drake sunk a well at Titusville, on Oil Creek, by way of experiment, to the depth of about 74 feet, and had the good fortune to strike a vein of Oil, the product of which has yielded him a handsome fortune. His success incited others to make experiments, and the whole country for more than a hundred miles on the Allegheny River and along Oil Creek has been carefully examined, with the result that fortunes are being rapidly realized by many. I am not correctly informed as to the number of wells on Oil Creek, but they are numerous. At Tidionte, in Warren county, further up the Allegheny, seventeen wells are in operation, producing not less than 10,000 gallons per day. There are probably a hundred wells more being sunk at Tidionte, and

Messrs. T. J. and T. Powell (London) state as follows relative to the *Leather Trade*, and it will be seen that they refer expressly to the large and notorious failures in that trade in June, 1860, of Laurence, Streatfield, Martimore, and Co., of London, and the gang of firms connected with and upheld by them.

Hides and Leather.—"The market for raw goods does not present any very marked feature during the past year (1859). The total import corresponds rather closely with that of 1859. The exports show a slight decrease, but they by no means represent any diminished demand for exportation, the principal supplies being drawn more immediately from the producing countries. On the contrary, there is no doubt that the requirements of the Continent have greatly increased,

within 3 miles each way. The 'Crescent Oil Company,' an incorporation having their business office at this city, own a large tract of land at Tidionte, and are producing great quantities of Oil. By the 1st of April next they will have at least twenty wells in operation. At Mecca, a small town in the eastern part of the State of Ohio, is a large tract of Oil country, which is now being worked, in which the Aurora Oil Company of this city are largely interested. Considerable quantities are also produced from wells on the little Kanawha River in North-Western Virginia. The supply obtained also from a large territory on the Thames River, in Canada West, is almost fabulous. These several Oil territories are favourably situated for getting the Oil to market. From Titusville and Tidionte during the season of navigation the Oil can be run down the river in flat boats to Pittsburg, at a very low price. Tidionte is 14 miles from the railway; Titusville, 22 miles; Mecca, 9 miles; and the Canada Oil lands, from 3 to 10 miles. The wells are mere holes in the ground, about 6 inches in diameter. They are dug by driving cast-iron pipes, 4 inches inside diameter, to the rock, varying in depth from 10 to 60 feet. After finding a 'good show' of Oil, a pump is put in the well driven by steam, and the Oil and water pumped into large vats holding a hundred barrels each, the Oil rising to the top while the water is drawn off at the bottom.

"The crude Oil is sold readily at 1s. 2d. to 1s. 4d. sterling per gallon at the well, and the barrels paid for extra. It makes a better light when refined than any other burning fluid I have ever seen—second only to best coal gas, with no liability to explode like many illuminating fluids that have been from time to time offered to the public. It is also in its raw state an excellent lubricator.

"The phenomena produced upon opening some of these wells are very singular. One opened at Tidionte a week ago, spouted the oil and water to the height of 60 feet, forced by the gas, the generation of which seems at all times to be going on.

"This new trade is worthy the attention of your Oil dealers, and I hope will receive it. The supply seems inexhaustible. Wells that commenced pumping at the rate of 160 gallons per day, are now pumping six or seven times that amount, while a few, from which at their opening the Oil was forced in large quantities by the pent-up gas, have fallen off; but if the pump is stopped a few days (as has happened by the breakage of machinery) the Oil commences to flow of its own accord. Most of the works are rude, and scarcely a well is worked to its capacity. Much of the Oil territory is in the forest, the fuel for generating steam is green, and the whole thing is in its infancy. When a year shall have passed, and experience shall have taught owners and operators the true system to be pursued, the supply will be very much increased. The demand seems to augment with the supply. The refineries are not able to fulfil their orders, and it is scarcely used in the rural districts. I hope scientific men, as well as dealers, will turn their attention to it. It is understood here that large quantities of a similar product from the valley of the Irawady finds a market in London. How is this?

"G."

and that all calculations for the future of the Hide market must recognise this fact. The shipments to the United States have been small throughout the year, and should the existing depression in prices, which the political excitement has occasioned, continue, we may expect, at least for a time, to receive Hides from that country. *Prices of raw goods were buoyant for the first three months, but in June an universally lower tendency prevailed. The failures of July doubtless accelerated their decline, but prices in general still afford little margin for profit to the manufacturer.*

"We cannot dismiss our retrospect of the year 1860, without a more distinct reference to the *disasters* which it has witnessed, and which will long make it memorable in the trade. That so gigantic an amount of commercial rottenness should have existed, and have carried so bold a front for so long a period, may well have surprised those unconnected with the Leather and Hide trades, and have obtained for these trades generally an unenviable notoriety, when to those within their sphere the disclosures excited the utmost astonishment. Since the publication of the proceedings in the Court of Bankruptcy, the only wonder is that the catastrophe did not occur earlier. It is, however, important to remember, as we stated in our circular of August last, that of the enormous aggregate of the liabilities of the firms that suspended payment, a very small proportion was due in the trade, and that the *monied interest are the principal losers*. We avail ourselves also of the present opportunity to contradict the evidence that has been given, more or less directly, stating that the custom of the trade is represented in the practices that the evidence in bankruptcy has disclosed. That the parties concerned may have had transactions analogous to other Leather factors, we do not dispute; but that the system that has been pursued of propping up houses that have been brought to hopeless insolvency by a course of excessive overtrading, has any representative in any dealings in the Leather and Hide trade outside the circle of the firms that have failed, we most positively deny. We believe, on the contrary, that the trade in general is in a sound and healthy state, and that the relations of the manufacturers and factors are of an independent and legitimate nature.

"We hope, however, that the lessons which these disgraceful disclosures are calculated to teach will not be forgotten, and that a system which will give to capital and fair dealing their rightful position, will be scrupulously followed; we may then anticipate great advantage from the removal of so much undue competition from all departments of the Leather and Hide trades. These misfortunes could not, however, diminish the *consumption* of leather, which must have been, in consequence of the wet season, *unusually large* during the past year. There is also no doubt that the *production has been greatly lessened*, and that dealers have to the utmost restricted their purchases. The stocks of Leather are by no means excessive, and we are therefore of opinion that with restored confidence, the prospect for the Leather trade is more satisfactory than for some time past."

From the Circular of Messrs. Boucher, Mortimore, and Co. (London), we obtain the following passage:—

Leather.—"The Leather trade has suffered greater changes during the past year, than have ever before been witnessed, and has been placed before the public in a most discreditable and false position. It is difficult for any one, unconnected with this branch of business, to understand how little the great bulk of those engaged in it have been directly affected by the fearful disasters that have taken place. The houses which have failed were nearly all connected together, and their business almost wholly confined to transactions with one another. The losses that have resulted have, in consequence, fallen for the most part upon the holders and discounters of bills, and but a comparatively small amount of actual capital has been withdrawn from the trade.

"The judicial investigations which have taken place make it clearly manifest that for some years past several of these houses have been largely engaged both in tanning and Leather dealing, regardless of the profit or of the risks they were

running. This has caused much mortification and perplexity to those who, having adhered to correct principles of business, have been compelled either to contract their operations or to continue them without an adequate return for the capital employed. The present year opens with more favourable prospects. Credit is now at its *minimum*, and, although the raw material is still relatively high compared with leather, it is quite certain that prices are not sustained by the competition of manufacturers supported by undue facilities. It may also be taken for granted that the sale of leather throughout the country will no longer be competed for by parties to whom profit or loss is not the first consideration.

"Prices have been less affected by the year's vicissitudes than might have been expected. During January the demand was unusually brisk, and some articles advanced; from that time comparative dulness prevailed until Midsummer, after which the trade was paralyzed for a short period by the heavy failures referred to. These, however, happening to occur just previous to the briskest season of the year, produced but little immediate effect in depressing prices. Some months later, the usual supply of fresh goods having been augmented by *large stocks of bankrupts' estates, a gradual decline in prices took place*, which now average from 10 to 12 per cent. below the quotations of our last annual price current. Less Leather is held in factors' warehouses at the present time than at this period last year, and stocks, both in town and country, are in general unusually light. In looking forward to the probable supply during the current year, we have only the legitimate production of a diminished number of tanyards to depend upon, which will, we anticipate, prove unequal to the greatly increasing requirements of the country."

The following passage is from the Circular of Mr. Thomas Thorburn, relative to the—

Scotch Iron Trade.—"Another year has been characterized by depression in the Iron Trade. Early in January, owing to the political situation of the Italian peninsula presenting signs fraught with danger to the peace of Europe, a feeling of uneasiness arose in the market, and prices fell from 57*s.* 6*d.* to 55*s.* per ton. But the announcement by France of the principles of free trade appearing simultaneously with a *strike* among the colliers and miners, and a threatened stoppage of several furnaces, created a speculative movement, and a rise to 61*s.* took place at the 1st of February. This advance was of short duration. The termination of the strike and the blowing in of the furnaces produced a reaction, and the price declined to 54*s.* before the end of March. The conviction gaining ground that the *production continued to be in excess of the demand* a further reduction ensued, and sellers were willing to take 49*s.* 6*d.* about the 1st of June. From that time onwards prices have been mainly regulated by political and commercial probabilities, and have fluctuated between 50*s.* and 53*s.*, making the year's average 53*s.* 6*d.* per ton—a rate considered scarcely remunerative to ironmasters in general.

"It is not surprising, considering the aspect of politics, the deficient crops over a wide area in Europe, and that in the course of four weeks there were in the value of money no fewer than four violent changes, each giving a shock to commerce, there has been an *irrepressible tendency towards lower prices*. Notwithstanding the stoppage of eighty furnaces for nearly five weeks, the produce in the last twelve months cannot be computed at less than 1,000,000 tons, and shows an *increase* when compared with 1859 of 50,000 tons. This augmentation arises not so much from an increase in the number of furnaces as from the *intrinsic improvements* in the process of manufacture. The shipments and local consumption combined amount to 903,000 tons, and exhibit a *decrease* of 12,000 tons in comparison with the same period last year, the stocks have therefore increased 97,000 tons, and are now 427,000 tons lying in warehouse-keepers' and makers' stores, exclusive of Carron.

"The *malleable works, founderies, and shipbuilding yards* have experienced, to a moderate extent, that revival of prosperity which has marked almost every

department of trade throughout the present year. Though the financial disturbances in America are complicated with political passions of an intensity never before known, yet there are favourable elements in our position in regard to that country, so as to encourage perfectly satisfactory anticipations. *The price is now twenty per cent. lower than it was previous to the crisis of 1857*; and as experience proves that cheap rates produce an increased demand, and that in the ensuing Session of Parliament no fewer than 302 bills will be brought forward to extend or improve existing railways, and, further, considering that the treaty with France has laid the deep and solid foundation on which is to rise the most gigantic fabric of commercial prosperity the world has ever seen, it is reasonable to anticipate a vast and increasing demand for all kinds of our manufactures, especially for iron."

Messrs. Churchill and Sim (London) describe the Wood Trade as follows:—

Wood.—"The importation of Wood from our North American colonies not having diminished during the past year, and our supply from the North of Europe continuing to increase, the total for 1860, for the use of the United Kingdom, has amounted to nearly three millions of loads; while for many previous years the supply has varied from 2,000,000 to 2,500,000 loads. The sale of Wood throughout England has been larger during 1860 than hitherto known. In the northern, eastern, and western districts, there was an early demand for the wood which had been stored on the close of the season of 1859; and the announcement of the abrogation of the foreign or differential duty the usual speculative operations of the trade gave more impulse to selling and buying. In the *London Market*, which is less dependent on speculation there was so steady a demand that the consumption of the stock, though large, could be anticipated in due time and before the new season of importation. But when buyers on all sides were ready to speculate in contracting with foreign shippers at advanced prices for the Wood at ports of shipment, *half of the abrogated import duty was soon absorbed, the remainder was lost sight of or included in the additional freight paid for late Baltic voyages, and the result is a very large and costly importation of foreign Wood without any diminution in the price here through the remitted import duty exceeds 10 per cent. of the gross value.* It would not be right to assume that the trade in Wood has increased solely in consequence of the reduction of duty, but looking to the great demand of the country for foreign supplies, the cost of Wood would be disproportionately high if the old duty of 55s. per load were now payable, as we sell the common timber of the Baltic for this price, and often for less.

"For ten years and more before the year 1831 it used to be stated in evidence before the Houses of Parliament that the annual imports of Wood would average 1,000,000 loads—half foreign, paying 55s. per load of duty, and half colonial, paying 10s. From 1831 to 1841 the imports ranged from 1,100,000 to 1,600,000 loads, nearly two-thirds being colonial, and paying the low duty. In 1842 and 1843 the foreign duties were reduced to 30s. and 25s. per load, and upon colonial timber a nominal charge of 1s. per load was levied. The imports did not increase during these two years of transition; but from 1844 to 1851 they rose from 1,600,000 to 2,000,000 of loads per annum—three-fifths of the supply still coming from the colonies.

"From 1851 to 1859, with the last reduction of the foreign duty to 7s. 6d. per load, the imports rose from 2,000,000 to 2,100,000 loads, with an average of half of colonial growth; and in 1860 the imports are computed as 2,990,000 loads; and the customs' entries (including some Wood bonded in 1859) will show the probable total of 3,300,000 loads."

The facts given in the extract relative to the rapid increase of the Timber Trade, and the stimulating effects of liberal and low Customs' Duties should not be forgotten.

IV.—*Cotton, Woollen, and Linen Trades:—Supply and Prices of Raw Cotton.*

Messrs. Robert Barbour and Brothers, of Manchester, make the following report of the *Manchester Cotton Trade* of 1860:—

"On the whole the year 1860, closes with a cheerful and rather sanguine feeling. The balance sheets, however, of 1860, will in most cases, be much less satisfactory than those of 1858 and 1859. Most of the shipments made to India during the year will result in very heavy losses, while those to China will yield little or no profit. The South American Merchants have done a more satisfactory business than for some years past; the West Indian demand has been under the average and the results of the favourable harvest in Canada are yet to be realized. The manufacturing interest, though not so prosperous as during 1858-59 contrasts most favourable with the depression which prevailed previous to these years. The cotton district consequently progresses in material wealth and enterprise, and the year will be signalized by the opening up of an intercourse with China and the conclusion of a commercial treaty with France, from both of which events great advantages are expected to arise. Some drawbacks and discouragements however cause anxiety. *The supply of labour is insufficient, and already there are looms in the district which are idle for the want of hands to work them.* The great question, however, is how to get a sufficient quantity of the raw material to meet the increased demand likely to arise from New Mills being brought into operation. The hostility at present existing between the Northern and Southern States of America may assume such an attitude as to limit our main supply, and cause cotton to approximate in value to flax. Such a consummation would be nearly as calamitous to this district and the country generally as a dearth of corn; and the public mind cannot be too much alive to the importance of the subject."

From the "*Leeds Mercury*,"—always so able and reliable on every topic connected with the West Riding—we take the following report of the—

Woollen Trade of 1860.—"The advent of 1860 found a state of general activity throughout the Woollen district, and the future was looked to with confidence. During the first three months of the year the trade was very good. The manufacturing localities were extremely busy; *not a loom was idle, nor a workman unemployed and the wages earned by some of the operatives were large and satisfactory.* As fast as goods suitable for the mantle trade could be produced they met with ready sale, both for the home and foreign market. This buoyancy for fancy goods continued *until April*, when it received a check. Inclement weather and a late Spring interfered seriously with the sale of light fabrics, and we are afraid the wet weather that supervened during summer will have caused a great portion of the spring stocks to remain on the shelves of the drapers.

"The growing and important trade to China and the East, contributed very largely to the activity prevalent in the Spring. The trade, however, received a check on the commencement of hostilities, but on the receipt of pacific news during the Autumn a revival took place, and now that peace is definitely concluded, a still further improvement may be hoped for. The volunteer movement gave another element of prosperity.

"The ordinary *plain broad cloth cotton trade* has not been buoyant during any period of the year. Low and middle qualities have had a good sale, but superfine could be moved only in small quantities.

"As previously intimated, an extraordinarily wet Summer followed a late Spring, and the prospect of a deficient harvest was apparent. A steady but considerable contraction of trade was observable, and the demand for the winter

season had none of the buoyancy of the spring trade. It was sluggish and moderately steady, but perhaps will be an average one.

"Viewing the *home trade* for the year in the aggregate, we think it will not be an improvement on the previous year, nor will it be much less. However, if under the unfavourable circumstances of the past year the trade has maintained a firm position, it must be considered satisfactory.

"The *foreign Trade*, in the aggregate, like the Home, has shown no decided improvement. To the United States, Brazil, Buenos Ayres, and the East Indies, our exports have fallen off considerably, but the deficiency is more than counter-balanced by the increase to China and Hong Kong, and North America.

"The present state of the *Woolen Trade* is sound and healthy. Stocks are not large, nor is there any great preparation going on, nothing beyond what the usual requirements of the season warrant. And as to the prospects of the new year, let us hope they will improve as it proceeds. The advance in the Bank of England's minimum rate of discount from 5 to 6 per cent., yesterday afternoon, is not a very gratifying adieu to the old year, and if we were to indulge in any bright anticipations for the new year, this step, decided on out of the regular course of the Bank proceedings, would rebuke us, as no doubt the directors have adequate reasons for the course they have adopted."

The following statement, from a local paper, relates to the

Flannel Trade of Rochdale.—"The closing *Flannel and Wool markets* here for the year 1860, have been of rather a quiet character. Prices of goods, however, continue steady, the manufacturers are well employed, and the prospects for the spring trade are of a fair character, though they are somewhat 'sicklied o'er' with a feeling of fear as respects continental affairs. The *Flannel trade* of this district for the year 1860, has been one unparalleled as to its extent, and the same may be said as to the aggregate profits. Throughout the greater part of the year the demand has been in advance of the supply, and this circumstance would warrant the inference that the manufacturers have obtained highly remunerative prices for their goods. Profits, however, have been diminished by both the advances which from time to time have been made in the price of wool, and by an increase in the cost of production. Notwithstanding these drawbacks, there is no doubt the manufacturers have had a very profitable year. Wool is moderately firm at present, but is not so buoyant as it was a few months ago, the fears about a deficient supply having become little more than a thing of the past."

Messrs. Dewar and Sons report to the following effect on the—

Linen Trade of 1860.—"In the home markets the *Linen trade* has, like most other branches of business, suffered much from the severity of the weather during the past year. It is seldom, indeed, that so great a want of life or activity has been observable as towards the close of the year. The *export trade* appears to have maintained its position, the returns showing a slight increase over 1859. But there is a falling off in the exports to the United States. How our trade may ultimately become affected should the secession movement be carried into effect, it is impossible to say. Taking the year as a whole, we cannot say that it has been a satisfactory one in the Linen trade; it has been by no means a profitable one; the only thing is, that much has occurred which gives better promise for the future. And we trust that, as our ports are in a great measure free, so far as Customs' duties are concerned, to all the world, our Government will not fail to urge upon other countries the justice of reciprocating with us in a corresponding spirit of commercial freedom. To the Linen trade one of the most valuable movements that has yet been made has been the establishment of the *Indian Flax Supply Company*. There never was at any time a greater necessity for a large supply of flax than at the present. Already France has concluded treaties, both with Belgium and Prussia, so that we shall have a formidable competition to meet in the French

markets as soon as they are thrown open. In all those countries there is an ample supply of the raw material, which gives them an immense advantage over us. We have every confidence, however, in the scheme for procuring an ample supply of flax from the Punjab. By the last advices received it appears that the company has already commenced operations—their manager having contracted for a considerable acreage of flax on the most favourable terms. Every assistance has been rendered by the authorities in the Punjab, while the native farmers are most favourably disposed towards the cultivation of the plant—the only thing needed being, as we have said from the first, a certain market for their produce when prepared for it. This they will now find at their own doors; so that, with a supply of the best description of seed, and the most improved machinery for the preparation of the fibre, we have no doubt that ultimately, in a very few years, our supply of flax from the Punjab will be amply sufficient to meet the requirements of the trade."

Messrs. Colin Campbell and Son, of Liverpool, state as follows relative to the—

Trade in Raw Cotton.—"The import of Cotton Wool into Great Britain during the year 1859, which amounts to 3,366,626 bales, is the largest on record, being 537,726 bales in excess of that of 1858, and which excess consists mainly of the produce of the United States of America. The stocks in all the ports of Great Britain, as nearly as they can be ascertained, amount, in the aggregate, to 594,510 bales, being 125,090 bales more than was held a year ago. On the assumption, then, that the trade held about 130,000 bales more than they held at the close of 1859, the consumption would amount to 2,503,080 bales, being 48,136 bales weekly, consisting of 40,954 American, 2,065 Brazil, 1,862 Egyptian, West India, &c., and 3,255 East India, against 44,123 bales consumed weekly in 1858, which consisted of 36,668 American, 2,027 Brazil, 2,016 Egyptian, West India, &c., and 3,412 East India. The increased consumption over last year amounts, in the aggregate, to 208,670 bales.

"So vague were the ideas entertained as to the requirements of every country, that it was all but taken for granted that if the American crop should amount to 4,250,000 bales, which was the highest estimate, at the close of 1859, the supply would be ample for the rapidly increasing consumption of the world. But, during the first three months of 1860, it was apparent from the magnitude of the receipts into the American ports that the extent of the crop had been much *under-estimated*, and during that interval the imports from all quarters amounted to 1,186,450 bales, and the stock in this port at the end of March fell very little short of 850,000 bales. So far, very little decline had taken place in prices, as the trade of the country was sound, and much encouragement was given to the extension of it by the manifesto of the Emperor of the French in favour of a more liberal commercial policy.

"In the meanwhile, because of the large export of bullion to the East, the rates of discount, which were at the beginning of the year at 2½ per cent., were gradually raised, until, at the end of March, they reached 4½ per cent. Still, however, and in spite of an import of Cotton during the months of April, May, and June of nearly 1,200,000 bales into this port, prices were not seriously affected, although it was then beyond all doubt that the American crop would exceed 4,500,000 bales.

"But, at the end of the *first week in June*, the stock here had so accumulated that, contrary to all experience, it had then obtained its *maximum* for the year, and amounted to 1,358,200 bales, but, fortunately, the rates of discount were reduced towards the close of that month to 4 per cent. The fact could now no longer be disguised that the stock which, in value amounted to 11,000,000*l.* or 12,000,000*l.* sterling, and had cost the *importer* very much beyond that amount, as he had based his operations on a much smaller estimate of crop, was *inconveniently held*, and, in spite of cheap money, the urgent necessities of some holders compelled them to force sales at the best prices attainable. The heavy weight of import was then pretty much at an end for the season, but a question arose as to how the then

unmanageable quantity of common and inferior qualities of American descriptions could be disposed of, and, therefore, but only for a short time, *prices were as low as they had been for many years.*

"Notwithstanding the prevalence of wet weather in this country during July, August, and September, and which resulted in a deficient and inferior grain harvest, a very large business was done in Cotton, and it would be difficult to say whether *spinners, speculators, or exporters* were the most eager competitors for quantity. There can be no doubt that the depressed prices, which were current for some time, were the means of largely *extending the consumption*, not only in this country but on the continent of Europe, besides which many *new mills*, both here and elsewhere, had been brought into operation, and it was also worthy of being recorded that the *export* from this port alone has amounted during the present year to at least 10,000 bales weekly.

"The advices had been for some time past of an unsatisfactory character as regards the new crop in America, but, until *October*, very little importance was attached to the extent of injury alleged to have been done by drought. Then, however, it became apparent that such was the fact, and apprehensions are so strongly entertained that the American crop of Cotton will prove very short, that operations have continued on a very large scale. The fluctuations in prices have not been very great, but from the lowest point in *July* to the highest on this day (31st December, 1860), there has been an *advance* realized of 2½d. to 2¾d. per lb. on the common qualities of American descriptions, but of not more than 1½d. to 1¾d. per lb. on the medium and better. The erroneous estimates which were made at the close of last year of the *American crop* prove how difficult it is to form an opinion of even probable supplies for the year, but so far as we have been enabled to obtain information we are disposed to think that from every country where Cotton is grown, except America, the supply will be *larger* than it was last year, and, most likely, considerably so from India; but, on the other hand, we entertain fears lest the crop of the United States should not exceed 4,000,000 bales."

V.—Freight Market and Shipping Interest.

The following is from the Circular of Messrs. W. S. Lindsay and Co., London:—

"During 1860 English Shipping has fully maintained its position with the vessels of other countries. By the official returns it appears that we have in our *foreign trade* much more tonnage employed than all other nations combined, and that there is no prospect, after ten years' experience, of foreign competition seriously injuring our shipowners, much less supplanting them in any branch of the carrying trade, even though (through the apathy of the executive) their property is still subjected to those special burdens and vexatious restrictions peculiar to a state of protection.

"Throughout the year 1860 there has been very little fluctuation in the rates of freight, and the average to and from the leading ports has been somewhat as follows:—

	To Port Philip.	From Odessa.	From Alexandria.	From Galatz.
	Per reg. ton. s. d.	Per ton. s. d.	Per qr. s. d.	Per qr. s. d.
1859	76 10	44 7	4 9	10 -
'60	79 2	48 9	5 1	10 11

"There has been a marked advance during the last three months in *grain freights*, especially from the United States, from which country we have imported

during the first eleven months of last year 1,078,446 qrs. of wheat, and 1,787,236 cwt. of flour, against 18,079 qrs. and 119,987 cwt. respectively during the same period of 1859; but, though shipping has found readier employment in 1860 than it did in either 1858 or 1859, the year just closed has not, upon the whole, been a prosperous one to shipowners generally. The present year offers much better prospects.

"Our exports and imports continue to increase rapidly; but the increase of tonnage has been small as compared with former years. Take New Brunswick, for instance, which has long produced that description of vessel best adapted to compete with our rivals, the ships of the United States. In 1856 there was built in that province 79,907 tons; in 1857, 71,989 tons; in 1858, 26,263 tons; in 1859, 38,303 tons; and in 1860 the estimate of new ships built is under 20,000 tons. And it will be found that the relative proportion of vessels built during the last few years in all parts of the world is somewhat similar to what those figures show for New Brunswick. There are, no doubt, exceptions, but all our advices lead us to believe that in the United States, in Norway and Sweden, and in the north of England, there have been fewer sailing vessels constructed in 1860 than in any of the previous five years. If this be so, then, when we take into consideration the numerous losses and disasters, and the rapid increase of the over-sea carrying trade, it is pretty evident that there must be a scarcity of tonnage before the close of the present year, and that before long freights will advance."

The following is from the Circular of Messrs. Alfred Laming and Co., of London:—

"The year which has elapsed since the issue of our last circular is more remarkable for its promises as to the future than for any influence it has had in immediately affecting the interests of our shipowners; how soon and to what extent the new prospects will be realized are not yet clearly to be seen, their realization resting chiefly in the hands of nations little accustomed to changes, and on whom the energy of the more commercial and enterprising countries of the world may only slowly operate. But while we have but small progress to announce, we have the satisfaction to believe that none of the events which the year has witnessed are of a nature to *retard the improvement which has been steadily progressing*, more particularly in *steam navigation, for the last few years; the diminution in ship building generally*, the best cure for existing evils, still continues. One result of the year will be the consequences to be secured by the present occupation of the capital of the Celestial Empire; and we may feel certain that, taught by a previous abortive reliance on moral securities, the united embassies will exact in the present instance all the material guarantees for extending European commerce into the heart of that country that they may find available. Hence we anticipate augmentations in our Chinese exports and imports, though their imports will probably only attain due proportions as the force of progress shall slowly break down existing obstructions to the inland circulation of merchandize, and which the interests and prejudices of local authorities will prompt them only very gradually to abolish. What the war with China has hitherto done for our commercial navy, consists mainly in having taken away towards the latter end of 1859, for Government service, many sailing vessels and large steam transports, which are still out, and which by the time they are discharged will have had profitable employment for about eighteen months. We may also notice that during the whole of 1860 the same war, in conjunction with the Italian revolutions, has tended to enable both large and small *steamers*, generally to find occupation at remunerative rates. By late accounts from China we learn that many *sailing vessels* had been paid off, and will probably be returning to this country, followed closely by others, both sailing and steam, whose discharge is likely to be an immediate consequence of the cessation of hostilities.

"Freights from the East, with the exception of those from Calcutta during one or two months, have ruled low, causing freights outwards to be proportionately

high. Our last advices from Bombay, report improvement in the demand homeward, consequent upon a presumed necessity for reinforcing our troops in New Zealand, but the improvement will probably have been reversed on the arrival of the news of the Chinese treaty. *Screw steamers* have found fair employment in the Baltic throughout the year, and more particularly towards its close, when freights rose to 40s. per ton for tallow from Cronstadt, 6s. 6d. from Dantzic and Königsberg, at which they stood so long as the navigation remained open. Recently we have had a good demand for screw steamers from France for large quantities of grain. In the Mediterranean they have been in great request. From Patras, Smyrna, Alexandria, Constantinople, and Odessa, steam freights have ruled high during the season; Patras having made a large demand by exporting currants to an amount estimated at 30,000 tons. About forty screw steamers have been despatched with full cargoes to Italy from this port alone. How rapidly *steam* is increasing in the Mediterranean will be seen by bearing in mind, that it was in 1857 that the first steamers were sent to Italy by ourselves; and that the trade by *steam tonnage* from Liverpool to the Mediterranean, which is now enormous, was only inaugurated twelve years ago, by a line of three steamers, of which we were the agents.

"For the future we have good prospects of a steam trade with United Italy, when Naples and Sicily shall have been put under the Sardinian tariff, and the resources of the neglected interior of those parts made available to commerce by roads of communication opened up to the seaports.

"Outward freights to Australia and India are firm, and the demand good. For Australia, 4l. per ton is offered for moderate-sized vessels. Coal freights to King George's Sound are quoted 43l. from the Tyne; Calcutta 43l.; Bombay 38l.; Madras 42l. Homeward freights are scarce, but the last accounts from Calcutta report a rise of 5s. per ton, freights being quoted at 3l. 2s. 6d. to 3l. 7s. 6d.; from rice ports, 3l. 10s. to 3l. 15s.; from Moulmein, for teak, 4l. 10s.; from Bombay, 2l. 15s. to 2l. 17s. 6d. Outward freights to the Pacific are dull; Calico is quoted 36s. 6d.; guano rates are 60s. for vessels of not above 900 tons, and 5s. additional for continental clauses. In the Mediterranean coal freights are on the decline. We quote from Odessa, 60s.; Danube, 10s. 6d.; Alexandria, 5s. Outwards: Genoa, 22l. 10s.; Malta, 19l.; Constantinople, 18l.; Odessa, 17l. For screw steamers the demand continues fair; our present orders for chartering range from 20s. to 27s. 6d., according to the suitableness of the steamers."

VI.—*Foreign and Colonial Loans and Bank Rates of Discount.*

On 1st January (1860), Baring, Brothers, and Co., and Glyn, Mills, and Co., brought forward, on behalf of the Canadian Government, a scheme for converting the various debts of the Province, amounting to 11,661,000l., into a consolidated 5 per cent. stock, irredeemable for twenty-five years. The scheme involved the raising of 2,800,000l., the whole of which was rapidly subscribed, the applications having reached 22,000,000l.

On 12th January, the Colony of Victoria announced that the amount of railway debentures to be issued by the colony in 1860, would be three millions sterling.

On 16th January appeared the manifesto of the Emperor of the French, announcing the Treaty of Commerce with England.

On 26th January, a Cape loan of 50,000l. in 6 per cent. colonial debentures was negotiated at 105½ @ 108½.

On 18th March Messrs. Rothschild introduced a Brazilian 4½ loan for 1,873,000l. at 88½.

On 10th April, tenders were opened for 2,650,000*l.* debentures 6 per cent. Colony of Victoria Railway Loan. The *minimum* price had been fixed at 105—but only 1,570,000*l.* was subscribed.

On 12th April occurred the singular circumstance of the withdrawal by Overend and Co., of 1,550,000*l.* in *notes* from the Bank of England, in consequence of their dissatisfaction with the bank rule against rediscounting for brokers. In consequence of this temporary withdrawal the bank note circulation stood in the official return at 23,470,000*l.*

On 20th April the fraud of 263,000*l.* by Pullinger, on his employers, the Union Bank of London, was announced.

On 24th June a Russian Loan of 8,000,000*l.* in $4\frac{1}{2}$ stock at 82, was opened by Messrs. Baring, in London, and Messrs. Hope, in Amsterdam. About 5,000,000*l.* was ultimately subscribed.

On 8rd July was announced the failure of the firm of Streatfield, Laurence, and Mortimore, of London and Liverpool, leather merchants and factors, with $1\frac{1}{2}$ millions of liabilities. This failure led to the stoppage of nearly a dozen smaller firms, who all turned out to have been confederates with Streatfield and Co. in a long course of reckless dealing in accommodation bills. The aggregate liabilities of the whole group of firms was about 3,000,000*l.* In Streatfield's case the disclosures in the Bankruptcy Court are among the most extraordinary on record.

On 25th June the Bank of France opened subscriptions for 12,000,000*l.* of railway obligations.

On 5th August, subscriptions were opened at Turin for 9,000,000*l.* Sardinian Loan at 5 per cent. at 80 $\frac{1}{2}$, and the applications amounted to 22,000,000*l.*

On 21st November, an arrangement was announced as having been effected by the Bank of France with the Bank of England, for a purchase by the latter of 2,000,000*l.* of *silver* in exchange for *gold*.

About seventy or eighty Joint Stock Companies of various kinds—mines, marine insurance, hotels, colonial banks, shipping companies, foreign railways, &c.—were brought forward in 1860, for which the proposed capital was about 18 millions sterling. It is probable that not more than one-half got beyond the preliminary stages. Besides these miscellaneous companies there was a large number of New Railways and extension of old lines.

There were *eleven* changes of the Bank of England *minimum* rate of Discount in the course of 1860. At the commencement of the year the rate was $2\frac{1}{2}$ per cent. with 16 millions of *Total Bullion*, and $8\frac{1}{2}$ millions of *Banking Reserve*. At the close of the year the rate was 6 per cent., with $12\frac{1}{2}$ millions of *Total Bullion*, and $6\frac{1}{2}$ millions of *Banking Reserve*.

The following Table (A) will show in outline the position of the

Bank of England at the dates of each of the *nineteen* changes of rate between 9th December, 1858, and 14th February, 1861 (2½ years) :—

(A.)—*Bank of England, 1859-60.—Alterations of Rate of Discount.*

[The 0,000's at end are omitted, thus 18,92 = 18,920,000.]

Dates.	Bank of England Minimum Rate of Discount.	Total Bullion.	Banking Reserve.	Circulation, including B. P. Bills.	Consols.
1858.	<i>Per cent. per ann.</i>	<i>Mins. £</i>	<i>Mins. £</i>	<i>Mins. £</i>	
9 Dec.	2½	18,92	13,36	20,83	97½
1859.					
28 April	3½	17,64	10,18	22,70	95
5 May	4½	17,20	9,42	23,04	90
2 June	3½	17,76	11,14	21,88	93
9 "	3	17,96	11,30	21,88	94
14 July	2½	17,94	10,70	22,57	93
1860.					
19 Jan.	3	15,88	8,30	22,91	95
31 "	4	14,94	7,51	22,69	94½
29 March	4½	15,27	8,76	21,67	"
12 April	5	14,64	5,64	24,17	"
10 May	4½	15,37	7,97	22,61	95
24 "	4	15,84	9,09	21,92	"
8 Nov.	4½	13,90	7,16	22,03	93
13 "	5	13,31	7,13	21,44	"
15 "	6				
29 "	5	13,86	8,43	20,62	92½
31 Dec.	6	12,65	6,62	21,15	"
1861.					
7 Jan.	7	12,17	6,19	21,12	91½
14 Feb.	8	11,57	6,35	20,30	"

VII.—*Course of Prices in 1860.*

In the Appendix to this Paper will be found continuations of the tables given in the two former series of these annual reports (for 1858 and 1859) of the Prices of Commodities at the close of 1860, and of several former years. The first of the Appendix Tables (D) gives also the average prices for the *six years* 1845-50—that is for the six years *preceding* the virtual commencement of the influx of the New Gold. In former enquires I have employed the prices of *1st January*, 1851, as a conditional datum from which to measure subsequent fluctuations, and I may repeat here my statement of last year to the effect that as regards a comparison between the *six years average* 1845-50, and the figures of *1st January*, 1851, the facts when carefully ascertained, show that in fifteen leading cases the quotations were lower on *1st January*, 1851, than on the average of the preceding six years.

In the following Tables (B) and (C), I have condensed into the smallest form I could manage, four comparisons, viz. :—

(a)	1st January, 1861 compared with 1st January, 1860
(b)	" " " " 1859
(c)	" " " " 1st July, 1857
(d)	" " " " Six years, '45-'50

The prices of *1st July, 1857*, will be recognized as the exceedingly high range of quotations which preceded the financial collapse at the close of that year.

In examining the following Tables (B) and (C), care must be taken to distinguish between those cases in which the *rise* or *fall* has been considerable, and those in which it is only slight. The details in Tables (D) and (E) in the Appendix, will supply the needful particulars :—

(B).—*Prices of Commodities in London, &c., at 1st January, 1861, compared with 1st January, 1860, and 1st January, 1859.**

(a) 1st January, 1861,			(b) 1st January, 1861,		
Higher	Same, or nearly so,	Lower	Higher	Same, or nearly so,	Lower.
than 1st January, 1860.			than 1st January, 1859.		
9	11	6	17	4	6
Coffee	Sugar	*Tea	Coffee	Rum	Tobacco
Butter	Rum	Tobacco	Sugar	Wool	Dyes
*Wheat	Flax	Leather	*Tea	Asbes	Saltpetre
*Butchers' Meat	Wool	Copper	Butter	Lead	Copper
*Raw Cotton	Timber	Steel	*Wheat		Iron
*Silk	*Tallow	Tin	*Butchers' Meat		Steel
Hemp	Saltpetre		*Raw Cotton		
Dyes	Iron		*Silk		
Oils	Lead		Flax		
	*Cotton Yarn		Hemp		
	" Cloth	Total Bank	Oils		Total Bank
		Note Cir-	Timber		Note Cir-
		culation of	Tallow		culation of
		Great Bri-	Leather		Great Bri-
		tain, 3 mil-	Tin		tain, 2 mil-
		lions lower	Cotton Yarn		lions lower
			" Cloth		

* The (*) indicates that the articles (*e.g.* Tea) are subject to some special disturbing influence.

(C.)—*Prices of Commodities in London, &c., at 1st January, 1861, compared with 1st July, 1857, and with the Average Prices of the Six Years, 1845-50.*

(c) 1st January, 1861,			(d) 1st January, 1861,		
Higher	Same, or nearly so,	Lower	Higher	Same, or nearly so,	Lower.
than 1st July, 1857.			than Six Years, 1845-50.		
4	6	18	28	8	8
Butter	Flax	Coffee	Coffee	Wheat	Sugar
Butchers' Meat	Wool	Sugar	Rum	Hemp	Iron
Saltpetre	Indigo	Rum	Tea	Timber	
Cotton Cloth	Oils	Tea	Tobacco		
	Timber	Tobacco	Butter		
	Cotton Yarn	Wheat	Butchers' Meat		
		Cotton Wool	Raw Cotton		
		Silk	Silk		
		Hemp	Flax		
		Dyes	Wool		
		Tallow	Dyes		
		Leather	Oils		
	<i>Total Bank</i>	Ashes	Tallow	<i>Total Bank</i>	
	<i>Note Cir-</i>	Copper	Leather	<i>Note Cir-</i>	
	<i>culation of</i>	Iron	Saltpetre	<i>culation of</i>	
	<i>Great Bri-</i>	Lead	Ashes	<i>Great Bri-</i>	
	<i>tain nearly</i>	Steel	Copper	<i>tain very</i>	
	<i>the same</i>	Tin	Lead	<i>nearly the</i>	
			Steel	<i>same</i>	
			Tin		
			Cotton Yarn		
			" Cloth		

In considering these tables it will scarcely escape notice that the variations in the amount of the outstanding *Bank Note Circulation* do not bear any relation, either of date or degree, to the large fluctuation of prices. I have also given in the Appendix in Tables (K) and (L). condensed returns for the last year or two of the Bank of England, the Bank of France, and the American Banks.

The *production* of new gold in California and Australia, during the *twelve* years 1849-60 (both inclusive), may be stated at 300 Millions sterling, equal to 50 *per cent.* upon the total stock of, say, 600 millions sterling of gold, existing in various forms in Europe and America in 1848.

Speaking in general terms, and reserving to myself the right of correction, it is probable that these 300 Millions of New Gold may be accounted for as follows :—

	Mins.	Mins.
Addition to Gold circulation of United Kingdom	40	
" " France	100	
" " United States.....	80	
		220
Employed and absorbed in—		
Australia	20	
California	20	
Turkey and East	20	
Brazil, Egypt, Spain, Portugal, &c.	20	
		80
		<hr/> 300
		<hr/>

As regards the new gold fields of *British Columbia*, discovered in the summer of 1858, it does not appear that, at all events, at present the supplies from thence will be large,—for the total produce for the 2½ years, to the close of 1860, is supposed to amount to not 700,000*l*.

On the other hand the yield of the *New Silver Mines* in California, the discovery of which was announced at the close of 1859, would seem to have already attained large dimensions. Recent statements represent the Washoe silver mines (California), as affording results "which exceed, both in extent and richness, all previous " mining experience—not excluding the silver mines of Mexico and " Peru."

I shall not attempt in this place to enter into any general discussion of the Course of Prices during 1860 and the preceding years. I would say, merely, that the leading feature in the Trade of 1860, as of the years preceding it, has been a scarcity of many perhaps of most, kinds of Raw Materials of manufacture, and of important articles of general consumption. Bad seasons, wars, political distrust, distempers, or other disturbing causes have operated almost without intermission during the last eight years, to diminish or interrupt former supplies and to impede efforts for extended production.

In those instances, however, in which there has been a singular immunity from any serious form of these interruptions, viz.: *Sugar, Iron, and Timber*—articles among the most important in the entire catalogue—we find that the prices at the present time are, as regards Sugar and Iron, *lower* than, and as regards Timber the *same* as, during the six years 1845-50. For these three articles there has been, perhaps, the most rapid extension of demand, but then there have been facilities for a corresponding extension of supply.

VIII.—*Explanatory Notes as regards the following* APPENDIX
OF TABLES.

The first and principal Table (D) in this Appendix exhibits the Wholesale Prices, in London and Manchester, of forty-one leading commodities at various periods from the opening of 1847 to the close of 1859. In those cases where Import Duties apply the prices *in bond* are of course given. The first line of the table gives the *average price* of several articles for the *Six Years 1845-50*, and is now published for the first time. It is followed by six quotations for dates subsequent to 1850. Care has been taken to compile the figures from the same source, and in the same manner throughout. The authority employed has been the weekly return of prices given in the *Economist* newspaper. The results for the six years, 1845-50, is the average of the quotations appearing on the first days of January, April, July, and October, in each year. The articles included in the table, and the arrangement of the table itself, correspond with the analogous observations which the late Mr. Tooke and myself were led to adopt in the fifth and sixth volumes of the *History of Prices* (published early in 1857), as on the whole the best mode of arriving at a definite view of the facts relating to the course of prices.

The second Table (E) reduces into more manageable form the results of the table of details which precede it. In (E) all the variations are measured from a fixed basis of 100; and as explained at the foot of the table, it is not difficult, by the aid of this method, to simplify to a large extent the questions to be further investigated.

In Tables (F) (G) are given the *Imports* and the *Exports* of leading commodities in each of six years, from 1845 to 1860, with the view of exhibiting that in some of the most important articles (*e.g.* sugar) the imports have been nearly doubled, and in all have largely increased. This large and rapid increase of demand is obviously a most important element to be considered in relation to the course of prices.

Table (H) gives the exports of Gold and Silver to India and the East, 1851-9.

In Table (I) a statement is given of the average annual quotations of the Foreign Exchange at *London* on Paris, *Hamburgh*, and *Amsterdam*; and at *Calcutta* on London. It also gives the price of standard Silver in London. The quotations are obtained from the official weekly list in the *Economist*, and from the Appendices to the Reports of the Banking Committees of 1848 and 1857-8. The expression of the annual result is the average of two quotations in each month of each year.

The Tables (K, L, M, and N) give returns of the Bank of France, American Banks, Country Banks, and Bank of England.

The series of tables of which these Reports and Appendices are continuations, were affirmed as correct in principle by the International Statistical Congress of 1860.

(D.)—*Wholesale PRICES of Commodities in LONDON and MANCHESTER.—Average of SIX YEARS, 1845-50 ;—and at Seven Dates, 1851-60.*

DATES.	(I.) COLONIAL AND TROPICAL PRODUCE (FOOD).						
	1	3		4	5	6	7
	Coffee.	Sugar.		Rum.	Tea.	Tobacco.	Butter.
	Jamaica, Fine Ord. to Mid., (bond) pr. cwt.	Brit. Plan. Yellow, (bond) pr. cwt.	Avg. Gaz. Price, B. P. and E. I., (bond) pr. cwt.	Jamaica, 15 c. 15. 0 p., (bond) pr. cwt.	Congou, Com. to Mid., (bond) pr. lb.	Virginian Leaf, (bond) pr. lb.	Waterford.
	s. s.	s. s.	s. d.	d. d.	d.	d.	s.
'45-'50, { Avg. six Yrs. }	44 @ 54	28 @ 30	29 -	34 @ 38	9½	4½	82
'51—1 Jan.	53 ,, 58	26 ,, 28	29 9	30 ,, 32	12	4½ @ 10	80
'53—1 July	50 ,, 58	20 ,, 23	24 8	32 ,, 34	12	2½ ,, 7½	84
57—1 ,,	68 ,, 80	40 ,, 44	45 9	52 ,, 56	15	8 ,, 11	100
'58—1 Jan.	50 ,, 62	23 ,, 26	26 7	44 ,, 48	13	7½ ,, 10	110
'59—1 ,,	56 ,, 71	22 ,, 26	27 -	36 ,, 40	11	5 ,, 10	105
'60—1 ,,	58 ,, 71	22 ,, 26	24 8	38 ,, 42	15	5 ,, 8½	105
'61—1 ,,	63 ,, 70	24 ,, 28	29 2	36 ,, 40	14	4 ,, 8	114

DATES.	(II.) WHEAT (ENG. AND W.) :—AND BUTCHERS' MEAT (NEWGATE MKT.)					
	8	10		11	12	13
	Wheat.	Beef.		Mutton.		Pork.
	Gazette Monthly Average. Pr. imp. gr.	Inferior Midlg. Pr. 8 lbs.	Prime Large, Pr. 8 lbs.	Middling, Pr. 8 lbs.	Prime, Pr. 8 lbs.	Large, Pr. 8 lbs.
	s. d.	d. d.	d. d.	d. d.	d. d.	d. d.
'45-'50, { Avg. six Yrs. }	53 -	34 @ 36	38 @ 40	42 @ 46	48 @ 50	39 @ 47
'51—1 Jan.	38 1	28 ,, 30	32 ,, 36	34 ,, 42	44 ,, 46	30 ,, 42
'53—1 July	44 11	40 ,, 42	42 ,, 44	46 ,, 50	52 ,, 56	40 ,, 44
'57—1 ,,	63 4	36 ,, 40	42 ,, 46	40 ,, 46	48 ,, 52	42 ,, 48
'58—1 Jan.	48 7	42 ,, 44	46 ,, 50	42 ,, 48	50 ,, 58	42 ,, 52
'59—1 ,,	40 6	42 ,, 44	46 ,, 48	44 ,, 50	52 ,, 56	36 ,, 44
'60—1 ,,	44 2	36 ,, 40	42 ,, 48	44 ,, 50	52 ,, 54	42 ,, 50
,,	53 7	40 ,, 48	50 ,, 52	48 ,, 54	56 ,, 60	48 ,, 54

(D.)—Wholesale Prices—Contd.

(III.) RAW MATERIALS OF MANUFACTURE.

DATES.	14	15	16	17	18	19	20	21	22
	Cotton, Raw.	Silk, Raw.	Flax.	Hemp.	Sheep's Wool.			Dyes.	
	Upland Fair.	Cominsby.	Frisland.	St. Peterb. Clean.	Eng. South- Down.	South Australia Lamba.	South Australia Locks.	Logwood, Jama.	Indigo, Bengal.
	Pr. lb.	Pr. lb.	Pr. ton.	Pr. ton.	P. 340 lbs.	Pr. lb.	Pr. lb.	Pr. ton.	Pr. lb.
45—50, { <i>Avge. six Yrs.</i> }	d.	s. s.	£ £	£	£	d. d.	d. d.	s. s.	s. d. s. d.
	5½	9 @ 14	41 @ 47	32	12	12 @ 22	7 @ 12	87 @ 93	1 9 @ 5 11
'51—1 Jan.	7½	9 „ 17	38 „ 46	30	14	18	10 „ 14	70 „ 80	3 — „ 6 10
'53—1 July.	6½	12 „ 15	42 „ 55	35½	19½	17	7 „ 17	105 „ 119	4 9 „ 7 8
'57—1 „	8½	17 „ 30	50 „ 65	35	19	18 @ 26	13 „ 19	105	1 8 „ 7 8
'58—1 Jan.	6½	14 „ 22	„	29	13	16 „ 21	7 „ 16	„	2 6 „ 10 —
'59—1 „	5½	12 „ 20	„	29	19	18 „ 25	5 „ 16	„	1 — „ 8 —
'60—1 „	5½	12 „ 23	65	28	19	22 „ 25	7 „ 13	80 @ 85	2 — „ 8 8
'61—1 „	7	15 „ 22	65	34	19	19 „ 25	8 „ 13	96	1 — „ 8 6

(III.) RAW MATERIALS—Continued.

DATES.	23	24	25	26	27	28	29	30	31
	Oils.			Timber.		Tallow.	Leather.	Saltpetre.	Ashes.
	Seal. P. 253 gls.	Olive Gallipoli.	Palm.	Danish and Memel.	Canadian Yellow Pine.	St. Peter- burgh 1st Y. C.	English Butts, 28-34.	English Refined.	Canada. Pearl.
	Pr. ton.	Pr. ton.	Pr. ton.	Pr. load.	Pr. load.	Pr. cwt.	Pr. lb.	Pr. cwt.	Pr. cwt.
45—50, { <i>Avge. six Yrs.</i> }	£ 31½	£ 44	£ 32	s. s. 71 @ 81	s. s. 65 @ 71	s. 44	d. d. 12 @ 23	s. s. 26 @ 28	s. 31
'51—1 Jan.	37	43	29	60 „ 70	55 „ 60	38	12 „ 23	27 „ 29	30
'53—1 July.	33½	71	36	72 „ 80	70 „ 85	49	14 „ 22	24 „ 28	28
'57—1 „	46	58	47	57 „ 80	75 „ 85	65	24 „ 30	38	45
'58—1 Jan.	39	51	40	57 „ 85	70 „ 75	52	20 „ 27	43	36
'59—1 „	37	50	40	55 „ 70	65 „ 70	51	12 „ 30	45	33
'60—1 „	33	57	46	55 „ 82	70 „ 75	58	18 „ 32	40	33
'61—1 „	40	60	47	60 „ 85	70 „ 75	60	17 „ 30	42	34

(D).—Wholesale Prices—Contd.

DATES.	(IV.) METALS.						(V.) MANCHESTER MARKETS.				
	32	33	34	35	36	37	38	39	40	41	
	Copper	Iron.		Lead.	Steel.	Tin.	Warr.	Cotton Cloth.		Raw Cotton	
	Tough	British	Swedish	English	Swedish	English	Mule 40,	Printers'	Gold-end	Upland	
	Cake.	Bars.	(Bond.)	Pigs.	Kegs.	Bars in	Fair,	26 in 66	Shirtings,	Good,	
	Pr. ton.	Pr. ton.	Pr. ton.	Pr. ton.	Pr. ton.	Pr. ton.	2nd qual.	27 yards,	37½ yards,	Fair.	
								4 lb. 2 oz.	8 lb. 12 oz.	Pr. M.	
'45—'50, { Avege. six Yrs. }	£ 88	£ 8	£ 11½	£ 17½	£ 15½	£ 85½	d. 9½	s. d. 4 7½	s. d. 8 10	d. 5½	
'51—1 Jan.....	84	6	11½	17½	15	84	12½	5 2	10 10	8	
'53—1 July.....	107	9½	11½	24½	17	108	10½	5 —	9 6	6½	
'57—1 „	117	8½	16	25	21	148	12½	5 4½	9 10½	8½	
'58—1 Jan.....	107	7½	15	23	22	109	10½	4 7½	8 7½	6½	
'59—1 „	107	7	13	22	20	124	12½	5 4½	9 7½	7½	
'60—1 „	112	6½	11½	22	19	139	12½	6 1½	10 7½	7½	
'61—1 „	102	6½	„	„	17½	137	„	6 —	11 —	7½	

DATES.	42	43	44	45	46	47	48
	Bank Note Circulation.			Rate of Interest.		Reserve of Bank of England.	
	Bank of England.	Country Banks, Gt. Britain.	Total.	Bank of England. Minn.	Lombard Street.	Total Bullion.	Banking Department.
	Mins. £	Mins. £	Mins. £	P. cent. p. ann.	P. cent. p. ann.	Mins. £	Mins. £
'45—'50, { Avege. six Yrs. }	20 '4	10 '3	30 '7	3½	3½	14 '4	8 '50
'51—1 Jan.....	20 '3	9 '5	29 '8	3	2½	14 '6	9 '0
'53—1 July.....	24 '2	10 '5	34 '7	3½	3½—4	18 '0	8 '5
'57—1 „	20 '5	10 '7	31 '2	5½	5½—¾	11 '6	6 '3
'58—1 Jan.....	20 '6	9 '4	30 '0	6	4 —5	12 '6	7 '6
'59—1 „	21 '7	10 '4	32 '0	2½	2 —2½	19 '1	12 '7
'60—1 „	22 '6	11 '0	33 '6	2½	„	17 '0	10 '3
'61—1 „	20 '5	11 '0	30 '5	6	6½	12 '6	6 '6

(E)—WHOLESALE PRICES, 1845-60.—PROPORTIONATE RESULTS deduced from the preceding Table (A.) on the Basis of representing by the Number 100 the AVERAGE PRICES of the Six Years 1845-50.

DATES.	Coffee, L.	Sugar, 2-3.	Tea, 5.	Tobacco, 6.	Wheat, 8.	Butchers' Meat, 9-12.	Cotton Wool (at Lon- don.) 14.	Silk, Raw, 15.	Flax and Hemp, 16-17.	Sheep's Wool, 18-20.	Indigo, 22.
45-50, { Ave- six Yrs. }	100	100	100	100	100	100	100	100	100	100	100
51-1 Jan.	113	91	128	166	71	87	143	112	95	110	125
53-1 July.	110	80	128	111	85	108	118	118	110	120	162
57-1 „	151	152	162	211	119	104	150	203	120	142	125
58-1 Jan.	113	83	140	200	92	111	114	156	113	107	150
59-1 „	130	85	119	166	77	109	104	138	113	127	111
60-1 „	121	83	162	150	83	107	98	140	122	130	130
61-1 „	135	89	151	133	100	118	132	160	128	130	106

DATES.	Oils, 23-25.	Timber, 26-7.	Tallow, 28.	Leather, 29.	Copper, 33.	Iron, 34-5.	Lead, 36.	Tin, 38.	Cotton Wool, Upland, Good Ord. Pair at Much.	Cotton Yarn.	Cotton Cloth.	Total Note Cir- culation Great Britain.
5-50, { Ave- six Yrs. }	100	100	100	100	100	100	100	100	100	100	100	100
51-1 Jan.	101	84	86	100	95	90	100	98	140	127	118	97
53-1 July.	130	107	111	100	121	103	140	114	110	105	107	113
57-1 „	141	102	147	150	128	125	143	166	150	126	113	101
58-1 Jan.	121	100	118	130	121	110	131	115	120	112	99	98
59-1 „	118	91	116	116	121	100	125	145	120	124	112	104
60-1 „	127	97	131	186	127	90	126	151	126	125	124	109
61-1 „	137	100	136	128	115	90	125	149	130	125	125	100

The construction of this Table (E) will be easily understood. For example—the Col. *Wheat*, presents the fluctuations in the Gazette price of Wheat, according to the actual prices given (D), Col. 8. The price of *Wheat*, in 1845-50, is represented in (E) by 100—and the fees of the six subsequent dates by corresponding additions to or abatements from 100. Thus, at 1st July, '57, the 100 had become 119. To arrive at the *per centage* variation from year to year, it is obvious that the *differences* must be measured, not against 100, but against the number placed next the first of the years compared. Thus, the *fall* in the prices of Wheat between 1st July, '57, and 1st Jan., '58, was not 27 per cent.—but 22 per cent.—or the proportion borne by 119 to 100 of 27.

(F.)—IMPORTS.—(Quantities).—UNITED KINGDOM, 1845-80.—*Leading Articles of Consumption.*

[The 0,000's at unit end omitted—thus 5,88 = 5,880,000.]

Year.	Raw Sugar. (Imptd.)	Tea. (Imptd.)	Coffee. (Imptd.)	Wine. (Imptd.)	Tobacco. (Imptd.)	Timber. (Imptd.)	Oils.
	Cwts.	lbs.	lbs.	Gals.	lbs.	Loads.	Cwts. & tons.
1845.....	5,82	53,15	50,37	8,47	32,94	1,95	,58
'50.....	6,29	50,51	50,80	9,30	35,16	1,66	,58
1853.....	7,28	70,74	55,63	11,03	40,67	2,52	,84
1858.....	9,01	75,43	60,70	5,79	59,64	2,22	1,02
'59.....	9,10	75,08	65,35	8,19	48,60	2,62	,92
1860.....	8,81	88,95	82,77	12,48	48,94	2,72	1,05

Year.	Hemp.	Hides.	Raw Silk.	Cotton Wool.	Sheep's Wool.	Tallow.	Seeds.— Flax, Lin. and Rape.
	Cwts.	Cwts.	lbs.	lbs.	lbs.	Cwts.	Qrs.
1845.....	,93	,72	4,35	721,98	76,81	1,19	,70
'50.....	1,05	,61	4,94	663,57	74,32	1,24	,71
1853.....	1,24	,81	6,48	895,28	119,40	1,17	1,11
1858.....	1,62	,76	6,28	1,034,34	126,74	1,23	1,23
'59.....	2,15	,86	9,92	1,232,00	133,37	1,07	1,68
1860.....	1,61	,85	9,18	1,390,93	148,40	1,43	1,60

(G.)—RE-EXPORTS of FOREIGN and COLONIAL Produce from United Kingdom, 1845-80.

Year.	Sugar.	Tea.	Coffee.	Wine.	Tobacco.	Oils.	Raw Silk.	Cotton Wool.	Sheep's Wool.
	Cwts.	lbs.	lbs.	Gals.	lbs.	Cwts.	lbs.	lbs.	lbs.
1845.....	,62	4,05	19,23	1,61	8,69	,07	,29	,38	2,61
'50.....	,37	5,01	12,17	1,74	7,25	,12	,56	,91	14,05
1853.....	,25	4,83	26,65	2,47	9,18	,20	,43	1,32	11,70
1858.....	,30	7,25	28,76	2,32	9,25	,28	2,31	1,33	26,59
'59.....	,21	6,42	29,58	2,13	11,16	,29	2,15	1,56	28,83
1860.....	,29	8,39	45,66	2,27	8,37	,32	3,15	2,23	30,64

(H.)—GOLD and SILVER, 1851-60.—Exports to INDIA, CHINA, EGYPT, from UNITED KINGDOM, and from the Ports of the MEDITERRANEAN according to Mr. Low's Circular of January, 1861.

Years.	Gold.			Silver.		
	From Gt. Britain.	From Medit. Ports.	Total.	From Gt. Britain.	From Medit. Ports.	Total.
	Mina. £	Mina. £	Mina. £	Mina. £	Mina. £	Mina. £
1851	,10	—	,10	1,72	—	1,72
'52	,92	—	,92	2,63	—	2,63
'53	,88	,09	,97	4,71	,85	5,56
1854	1,17	,05	1,22	3,13	1,45	4,58
'55	,95	,24	1,19	6,11	1,52	7,63
'56	,41	,07	,48	12,12	1,99	14,11
1857	,27	,26	,53	16,80	3,35	20,15
'58	,17	,16	,33	4,78	,91	5,69
'59	,79	,14	,93	14,83	1,52	16,35
'60	1,61	,76	2,37	7,81	2,76	10,57
Totals...	7,27	1,79	9,08	74,64	14,35	89,00
Average....	,73	,18	,91	7,46	1,43	8,90

The Exports of Silver to the Indian Government were 6½ Millions in 1859, and 1 Million in 1860. Messrs. Fixley, Abell, and Langley, Bullion Brokers, apportion the Export of Silver from Great Britain in each of the Five Years 1855-'60, as follows:—

Year.	India.	China.	Straits.	Total.
1855	4,74	1,37	,31	6,43
'56	8,38	3,16	,56	12,11
'57	11,38	4,47	,87	16,73
'58	8,30	1,35	,10	4,75
'59	11,16	3,37	,29	14,82
'60	4,38	3,65	,43	8,48

(L).—FOREIGN EXCHANGES, 1841-60.—ANNUAL AVERAGE RATES, *London on Paris, Hamburg, and Amsterdam.*—*Calcutta on London*—and *Price of Standard Silver Bars in London.*

Years.	Paris. 3 m. dt.	Hamburg. 3 m. dt.	Amsterdam. 3 m. dt.	Calcutta on London. 6 m. dt.	Standard Silver (bars), in London.
1841.....	25·65	13·9½	12 4	d. 23	per oz. 60
'42.....	·80	·11½	·5	24	59½
'43.....	·85	·13½	·5	23½	„ ¾
'44.....	·75	·11½	·3½	22	„ ½
'45.....	·92	·13½	·7½	22½	„ ½
	25·80	13·12	12·5	23	59½
1846.....	25·90	13·12½	12·7	23	59½
'47.....	·60	·12½	·4½	22½	„ ½
'48.....	·90	·13	·3½	22½	„ ½
'49.....	·80	·13	·3½	23	„ ¾
'50.....	·40	·11	·1½	24½	60
	25·72	13·12½	12·4	23½	59½
1851.....	25·25	13·8	11·18	24½	61
'52.....	·50	·9½	12·0	24½	60½
'53.....	·30	·7½	11·18½	25	61½
'54.....	·35	·6	·17	24½	„ ½
'55.....	·50	·8	·19	25½	„ ½
	25·38	13·8	11·18	25	61½
1856.....	25·70	13·9	12·0	26	61½
'57.....	·70	·9	12·0	„ ¾	„ ½
'58.....	·35	·7½	11·17½	25	„ ½
'59.....	·35	·5½	·16	24½	„ ½
'60.....	·42	·6	12·0	„ ¾	„ ½
	25·50	13·7½	11·19	25½	61½

(K).—BANK OF FRANCE, 1857-60.—*Abstract of Official Returns.*—25 francs = £.

I.—LIABILITIES (Passif).

1	2	3	4	5	6	7	8	9	10	11	12	13
Date.	Billets to Bearer. (Circulation.)			Billets to Order. (Bank Post Bills.)			Current Accounts. (Deposits.)				Other	Total
	Paris.	Branch.	Total.	Paris.	Récep- tissés.	Total.	Treas- ury.	Paris.	Branch.	Total.	Li- abilities.	Li- abilities.
1857.	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £
Jan. 8....	21'76	2'73	24'49	'21	'14	'35	3'06	5'55	'90	9'51	5'08	39'43
April 9....	21'43	2'35	23'78	'20	'14	'34	2'75	4'62	'96	8'33	5'12	37'57
July 9....	22'12	2'22	24'34	'22	'17	'39	4'56	5'59	'99	11'14	9'02	44'89
Oct. 8....	22'20	2'02	24'22	'27	'18	'45	3'50	5'51	'97	9'98	9'11	43'76
1858.												
Jan. 14....	21'39	1'87	23'26	'23	'12	'35	2'51	5'84	1'16	9'51	9'02	42'14
April 8....	21'79	1'64	23'43	'26	'11	'37	3'72	5'23	1'11	10'06	9'07	42'93
July 8....	23'69	1'63	25'32	'25	'18	'43	4'35	5'66	1'13	11'14	9'04	45'93
Oct. 14....	—	—	27'62	'30	'32	'62	4'70	5'61	1'13	11'44	8'94	48'62
1859.												
Jan. 13....	—	—	30'19	'26	'24	'50	2'84	7'35	1'21	11'40	8'94	51'03
April 14....	—	—	29'21	'26	'36	'62	3'05	8'39	1'13	12'57	8'92	51'32
May 12....	—	—	29'47	'29	'50	'79	3'78	10'54	1'49	15'81	9'02	55'09
June 9....	—	—	26'77	'32	'43	'75	8'16	12'04	1'48	21'68	9'09	58'29
July 14....	—	—	29'36	'26	'45	'71	7'05	10'23	1'10	18'38	9'02	57'47
Aug. 11....	—	—	29'43	'24	'39	'63	7'15	7'25	1'26	15'66	8'91	54'63
Sept. 8....	—	—	28'02	'26	'36	'62	8'20	7'15	1'22	16'57	8'99	54'20
Oct. 13....	—	—	28'08	'26	'34	'60	7'46	7'31	1'20	15'97	9'06	53'71
Nov. 10....	—	—	28'24	'22	'35	'57	7'98	6'98	1'19	16'15	9'19	54'15
Dec. 8....	—	—	27'14	'29	'28	'57	9'54	5'89	1'30	16'73	9'25	53'69
1860.												
Jan. 12....	—	—	29'93	'28	'28	'56	10'71	6'28	1'24	18'23	9'08	57'80
Feb. 9....	—	—	29'96	'19	'30	'49	9'55	5'87	1'52	16'94	8'86	56'25
Mch. 8....	—	—	28'39	'24	'35	'59	8'83	7'14	1'50	17'47	8'88	55'33
April 12....	—	—	29'87	'29	'41	'70	6'70	7'07	1'32	15'09	8'87	54'53
May 10....	—	—	30'58	'31	'46	'77	3'06	7'00	1'45	13'51	9'14	54'00
June 14....	—	—	29'76	'29	'46	'75	5'05	8'39	1'57	15'01	9'10	54'62
July 12....	—	—	31'50	'29	'45	'74	5'10	7'91	1'31	14'32	9'13	55'69
Aug. 9....	—	—	30'40	'33	'44	'77	5'29	8'88	1'40	15'57	8'91	55'65
Sept. 13....	—	—	29'90	'30	'43	'73	5'38	8'15	1'53	15'06	8'89	54'58
Oct. 11....	—	—	29'94	'31	'47	'78	4'75	7'19	1'33	13'27	9'18	53'17
Nov. 8....	—	—	30'30	'26	'41	'67	5'33	7'03	1'34	13'70	9'21	53'88
Dec. 13....	—	—	29'88	'42	'40	'82	5'36	6'33	1'28	12'97	9'20	53'87

The 000's at Unit end are omitted—thus 29,98 = £29,980,000.

The Minimum rate of discount of Bank of France was fixed on 4th Aug., 1859, @ 3½ per cent. ;
12th Nov., 1860, @ 4½ per cent. ; 2nd Jan., 1861, @ 5½ per cent.

(K.)—BANK OF FRANCE, 1857-60.—*Abstract of Official Returns—Contd.*

II.—Assets (Actif).

Dates.	Coin and Bullion.			Portfolio. (Discounts.)			21	22	23	24	25
							Advances on Ingots.	Advances on Public Stocks.	Advances on Shares.	Other Assets.	Total Assets
	Paris.	Branch.	Total.	Paris.	Branch.	Total.	Total.	Total.	Total.		
	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £
1857.											
Jan. 8....	2'88	4'80	7'68	11'22	11'40	22'62	'15	1'24	'93	6'81	39'51
April 9....	4'24	5'16	9'40	10'53	10'22	20'75	'11	1'17	'78	5'36	37'51
July 9....	4'39	6'10	10'49	12'02	11'37	23'39	'09	1'17	'80	8'95	44'84
Oct. 8....	4'28	4'74	9'02	12'66	11'69	24'35	'14	1'19	1'13	7'92	43'74
1858.											
Jan. 14....	2'84	7'22	10'06	11'68	10'07	21'75	'18	1'26	1'96	6'93	42'14
April 8....	6'35	8'96	15'31	8'03	8'62	16'65	'12	1'41	3'37	6'07	42'93
July 8....	9'31	11'81	21'12	7'31	8'43	15'74	'12	1'54	2'34	5'07	45'93
Oct. 14....	10'13	11'84	21'97	7'66	8'47	16'13	'10	2'50	2'73	5'19	48'63
1859.											
Jan. 13..	9'01	12'02	21'03	8'98	9'45	18'43	'07	2'26	4'13	5'11	51'03
April 14..	9'15	12'60	21'75	8'73	9'07	17'80	'03	1'60	5'03	5'11	51'32
May 12..	7'00	13'73	20'73	10'46	10'00	20'46	'03	1'77	5'82	6'27	55'09
June 9..	6'70	16'15	22'85	10'58	10'84	21'42	'04	1'76	6'13	6'09	58'29
July 14..	8'40	14'00	22'40	9'81	11'48	21'29	'04	1'70	6'02	6'02	57'47
Aug. 11..	10'96	14'15	25'11	8'31	10'23	18'54	'03	1'62	3'28	6'05	54'63
Sept. 8..	11'18	14'60	25'78	8'06	9'59	17'65	'04	1'60	3'21	5'92	54'29
Oct. 13..	8'97	14'71	23'68	8'68	10'33	19'01	'04	1'68	3'31	5'99	53'71
Nov. 10..	8'47	14'47	22'94	9'30	10'89	20'19	'03	1'71	3'42	5'86	54'15
Dec. 8..	8'23	14'94	23'17	8'85	10'72	19'57	'02	1'71	3'37	5'85	53'69
1860.											
Jan. 12..	7'34	14'03	21'37	9'96	11'42	21'38	'03	1'76	3'40	9'86	57'00
Feb. 9..	6'93	14'66	21'59	10'06	10'62	20'68	'02	1'69	3'42	8'86	56'25
Mch. 8..	7'06	14'72	21'78	9'51	10'03	19'54	'05	1'66	3'39	8'91	55'33
April 12..	7'12	14'29	21'41	9'32	9'85	19'17	'09	1'61	3'33	8'92	54'53
May 10..	6'69	14'20	20'89	9'05	9'69	18'74	'11	1'58	3'78	8'90	54'00
June 14..	6'93	15'13	22'06	8'01	9'50	17'51	'13	1'62	4'33	8'97	54'63
July 12..	5'67	14'92	20'59	8'87	10'81	19'68	'20	1'61	4'88	8'73	55'69
Aug. 9..	6'52	15'45	21'97	9'11	10'99	20'10	'18	1'66	2'10	8'64	55'61
Sept. 13..	5'98	15'26	21'24	8'65	10'99	19'64	'19	1'66	3'13	8'72	54'56
Oct. 11..	4'69	13'71	18'40	9'53	11'28	20'81	'31	1'68	3'20	8'77	53'11
Nov. 8..	4'60	12'78	17'38	10'46	12'07	22'53	'28	1'72	3'26	8'71	53'61
Dec. 13..	4'94	12'32	17'26	9'79	11'80	21'59	'29	1'56	3'15	9'02	52'81

The 000's at Unit end are omitted—thus 29,88 = £29,880,000.

(L.)—BANKS in BOSTON and NEW YORK, 1859-60.

Monthly averages deduced from Weekly Official Returns. 85 = £.

Averages of Months of	Boston.				New York.				Rates of Discount in New York on Prime endorsed 60 d. Bills.
	Liabilities.		Assets.		Liabilities.		Assets.		
	Circul.	Depa.	Loans.	Specie.	Circul.	Depa.	Loans.	Specie.	
1859.	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Pr. ct. per ann.
Jan.	1'32	4'25	11'95	1'56	1'52	22'94	25'85	5'74	4½ @ 5½
Feb.	1'26	4'01	11'79	1'32	1'56	22'12	25'64	5'21	
March	1'06	3'94	11'65	1'26	1'60	21'55	25'33	5'12	
	1'21	4'07	11'79	1'38	1'56	22'20	25'64	5'36	
April	1'37	4'28	11'65	1'30	1'66	22'37	25'85	5'17	5 „ 5½
May	1'38	4'27	11'60	1'36	1'69	22'42	25'75	5'08	6 „ 6½
June	1'37	4'04	11'60	1'30	1'66	19'93	24'57	4'53	6½ „ 7
	1'37	4'19	11'62	1'32	1'70	21'57	25'06	4'93	
July	1'40	3'77	11'74	1'00	1'65	19'21	24'14	4'41	6½ „ 7½
Aug.	1'29	3'54	11'61	'97	1'67	18'07	23'61	4'14	6½ „ 7½
Sept.	1'31	3'66	11'73	1'03	1'68	18'67	23'76	4'27	6 „ 7
	1'33	3'66	11'69	1'00	1'67	18'65	23'84	4'27	
Oct.	1'39	3'89	11'72	1'10	1'68	18'60	23'53	4'02	6½ „ 7
Nov.	1'37	3'91	11'85	1'02	1'68	19'42	24'21	3'94	6½ „ 7½
Dec.	1'32	3'71	11'93	'94	1'67	19'96	24'73	3'97	7 „ 7½
	1'36	3'83	11'83	1'02	1'68	15'99	24'16	3'98	
Ave. Year	1'32	3'94	11'73	1'18	1'65	19'60	24'70	4'64	
1860.									
Jan.	1'29	3'55	11'96	'87	1'61	19'74	24'75	3'79	8½ „ 9
Feb.	1'26	3'53	11'53	'89	1'61	19'93	24'80	4'05	7 „ 7½
March	1'27	3'72	12'01	1'07	1'67	21'23	25'43	4'59	6 „ 7
	1'27	3'60	11'83	'94	1'63	20'30	24'99	4'14	
April	1'42	4'02	12'16	1'25	1'76	21'48	25'80	4'63	3½ „ 6
May	1'40	4'13	12'31	1'25	1'82	21'36	25'19	4'59	5 „ 6
June	1'41	4'12	12'53	1'25	1'76	20'67	25'15	4'73	5 „ 6
	1'41	4'09	12'33	1'25	1'78	21'17	25'38	4'65	
July	1'47	4'05	12'94	1'13	1'75	21'15	25'59	4'64	4½ „ 5
Aug.	1'40	3'82	12'92	1'02	1'83	21'12	26'02	4'24	5 „ 6½
Sept.	1'41	3'85	12'50	1'06	1'89	20'29	24'50	3'85	6½ „ 7½
	1'43	3'90	12'79	1'07	1'82	20'85	25'37	4'24	
Oct.	1'54	4'09	12'87	1'05	1'86	20'76	24'50	4'27	6½ „ 7
Nov.	—	—	—	—	1'86	15'41	24'83	3'96	6½ „ 9
Dec.	—	—	—	—	1'71	17'23	26'19	4'01	10 „ 15
	—	—	—	—	1'81	17'80	25'17	4'08	

Note.—The Returns for November and December are at present incomplete.

(L.)—BANKS in PHILADELPHIA and NEW ORLEANS, 1859-60.

Monthly Averages deduced from Weekly Official Returns. 85 = £.

Averages of Months of	Philadelphia.				New Orleans.			
	Liabilities.		Assets.		Liabilities.		Assets.	
	Circ.	Depos.	Loans.	Specie.	Circ.	Depos.	Loans.	Specie.
1859.	Mins.	Mins.	Mins.	Mins.	Mins.	Mins.	Mins.	Mins.
Jan.	£ '55	£ 3'46	£ 5'27	£ 1'21	£ 2'14	£ 4'46	£ 4'20	£ 3'24
Feb.	'55	3'27	5'30	1'19	2'44	4'66	4'50	3'34
March	'58	3'37	5'36	1'21	2'53	4'56	4'53	3'37
	'56	3'36	5'31	1'20	2'37	4'56	4'41	3'31
April	'67	3'48	5'61	1'27	2'56	4'39	4'21	3'18
May	'61	3'45	5'44	1'22	2'47	4'06	3'79	3'05
June	'57	3'21	5'16	1'06	2'35	3'58	3'55	2'82
	'62	3'38	5'73	1'18	2'46	4'01	3'85	3'02
July	'57	2'98	5'04	0'95	2'15	3'26	3'39	2'72
Aug.	'54	2'88	4'91	1'00	1'98	3'12	3'69	2'63
Sep.	'54	3'00	4'96	1'08	1'90	3'08	4'19	2'56
	'55	2'95	4'97	1'01	2'01	3'15	3'75	2'63
Oct.	'56	3'06	5'12	1'03	1'87	3'36	4'72	2'54
Nov.	'53	3'02	5'08	'96	1'91	3'63	4'98	2'45
Dec.	'52	2'94	5'00	'91	2'16	3'81	5'11	2'36
	'54	3'00	5'40	'97	1'98	3'60	4'94	2'45
Ave. Year	'57	3'17	5'35	1'09	2'20	3'83	4'24	3'85
1860.								
Jan.	'53	2'98	5'07	'90	2'50	3'77	4'97	2'50
Feb.	'53	3'01	5'09	'93	2'68	3'89	4'98	2'56
March	'54	3'06	5'17	'97	2'76	3'90	4'82	2'55
	'53	3'02	5'11	'93	2'65	3'85	4'92	2'54
April	'63	3'21	5'44	1'06	2'23	3'60	4'46	2'43
May	'58	3'27	5'50	1'06	2'45	3'51	4'04	2'34
June	'55	3'13	5'39	'86	2'29	3'27	3'47	2'16
	'59	3'20	5'44	'99	2'32	3'46	3'99	2'31
July	'57	3'18	5'37	'87	2'50	2'89	3'41	1'94
Aug.	'57	3'18	5'38	'95	1'90	2'82	4'00	1'97
Sept.	'60	3'24	4'98	'92	1'79	2'73	4'62	1'97
	'59	3'20	5'24	'91	2'06	2'81	4'01	1'96
Oct.	'58	3'36	5'63	'91	1'65	2'93	4'92	1'98
Nov.	—	—	—	—	—	—	—	—
Dec.	—	—	—	—	—	—	—	—

(M.)—NOTE CIRCULATION (UNITED KINGDOM).—COUNTRY BANKS.

Monthly Averages, 1859-60.

ENGLAND AND WALES.				SCOTLAND.				IRELAND.			
DATE.	Private Banks. (Fixed Issues, 440.)	Joint Stock Banks. (Fixed Issues, 820.)	TOTAL. (Fixed Issues, 770.)	Four Weeks ended	25 and upwards.	Under 25.	TOTAL. (Fixed Issues, 975.)	25 and upwards.	Under 25.	TOTAL. (Fixed Issues, 635.)	
1859.	Mins. £	Mins. £	Mins. £	1859.	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	
Jan.	3,39	2,92	6,32	Jan.	1,54	2,56	4,10	3,20	3,53	6,73	
Feb.	3,35	2,91	6,26	Feb.	1,46	2,44	3,90	3,24	3,66	6,90	
March	3,36	2,99	6,36	March ..	1,41	2,37	3,78	3,27	3,66	6,93	
April	2,55	3,12	6,68	April	1,38	2,39	3,77	3,34	3,62	6,96	
May	3,47	3,03	6,49	May	1,54	2,44	3,98	3,50	3,55	7,05	
June	3,36	2,93	6,29	June	1,74	2,74	4,48	3,41	3,39	6,80	
July	3,36	2,92	6,29	July	1,56	2,57	4,13	3,31	3,24	6,55	
Aug.	3,29	2,89	6,19	Aug.	1,44	2,53	3,97	3,28	3,07	6,35	
Sept.	3,38	2,96	6,34	Sept.	1,43	2,61	4,04	3,29	3,32	6,61	
Oct.	3,66	3,08	6,74	Oct.	1,54	2,66	4,20	3,55	3,70	7,25	
Nov.	3,59	2,07	6,66	Nov.	1,69	2,82	4,51	3,61	3,83	7,44	
Dec.	3,44	2,99	6,43	Dec.	1,72	2,87	4,59	3,53	3,87	7,40	
Average.	3,43	2,90	6,33		1,53	2,59	4,12	3,38	3,53	6,91	
1860.				1860.							
Jan.	3,56	3,03	6,59	Jan.	1,60	2,68	4,28	3,47	3,89	7,36	
Feb.	3,41	2,93	6,34	Feb.	1,59	2,53	4,12	3,48	3,87	7,35	
March	3,40	3,00	6,40	March ..	1,55	2,45	4,00	3,45	3,75	7,20	
April	3,57	3,13	6,70	April	1,44	2,44	3,88	3,45	3,64	7,09	
May	3,51	3,08	6,59	May	1,50	2,50	4,00	3,56	3,45	7,01	
June	3,44	2,99	6,43	June	1,58	2,68	4,26	3,40	3,11	6,51	
July	3,46	2,99	6,45	July	1,47	2,59	4,06	3,45	2,95	6,40	
Aug.	3,35	2,92	6,27	Aug.	1,53	2,58	4,11	3,27	2,91	6,28	
Sept.	3,30	2,93	6,23	Sept.	1,47	2,63	4,10	3,25	2,91	6,16	
Oct.	3,57	3,08	6,65	Oct.	1,60	2,68	4,28	3,45	3,45	6,90	
Nov.	3,48	3,05	6,53	Nov.	1,71	2,87	4,58	3,59	3,56	7,15	
Dec.	3,34	2,94	6,28	Dec.	1,73	2,96	4,69	3,43	3,61	7,04	
Average.	3,45	3,00	6,45		1,56	2,63	4,19	3,44	3,42	6,86	

(N.)—BANK OF ENGLAND.—1859-60.

Rendered pursuant to the Act 7th and

ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
Liabilities.	DATES.	Assets.			Notes in Hands of Public. (Col. 1 minus col. 18.)	Minimum Rates of Discount at Bank of England.
Notes Issued.		Government Debt.	Other Securities.	Gold Coin and Bullion.		
Mins. £	1859.	Mins. £	Mins. £	Mins. £	Mins. £	1858. Pr. ct. p.an.
33,03	Jan.	11,01	3,46	18,56	20,91	9 Dec., 2½
33,35	Feb.	11,01	3,46	18,88	20,60	"
33,60	March ...	11,01	3,46	19,13	20,54	"
32,11	April	11,01	3,46	17,64	21,79	1859.
31,03	May	11,01	3,46	16,55	21,67	28 April, 3½
31,81	June	11,01	3,46	17,33	20,89	5 May, 4½
						2 June, 3½
31,63	July	11,01	3,46	17,18	21,77	9 " 3
30,85	Aug.	11,01	3,46	16,38	21,83	14 July, 2½
30,93	Sept.	11,01	3,46	16,45	21,16	"
31,06	Oct.	11,01	3,46	16,59	22,24	"
30,75	Nov.	11,01	3,46	16,28	21,59	"
30,72	Dec.	11,01	3,46	16,25	20,84	"
	1860.					1860.
29,82	Jan.	11,02	3,46	15,35	21,83	19 Jan., 3
28,86	Feb.	11,02	3,46	14,39	21,09	31 " 4
29,04	March ...	11,02	3,46	14,56	20,62	29 March, 4½
						12 April, 5
25,97	April	11,02	3,46	13,99	22,19	10 May, 4½
29,21	May	11,02	3,46	14,34	22,09	24 " 4
29,99	June	11,02	3,46	15,51	21,00	"
29,87	July	11,02	3,46	15,39	22,04	"
29,40	Aug.	11,02	3,46	14,94	21,57	"
29,97	Sept.	11,02	3,46	15,50	20,98	8 Nov., 4½
						13 " 5
28,62	Oct.	11,02	3,46	14,25	21,61	15 " 6
27,29	Nov.	11,02	3,46	12,82	20,54	29 " 5
27,03	Dec.	11,02	3,46	12,58	19,87	31 Dec., 6

MONTHLY AVERAGES OF THE WEEKLY RETURNS.
St. Victoria, c. 32 (1844).

8	9	10	11	12	13	14	15	16	17	18
BANKING DEPARTMENT.										
Liabilities.					DATES.	Assets.				Totals of Liabilities and Assets.
Capital and Res.		Deposits.		Seven Day and other Bills.		Securities.		Reserve.		
Capital.	Res.	Public.	Private.			Govern- ment.	Other.	Notes.	Gold and Silver Coin.	
Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	1859.	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £
14,55	3,22	6,98	14,82	,85	Jan.	10,72	16,97	12,12	,49	40,30
14,55	3,33	7,45	14,56	,79	Feb. ...	10,70	16,49	12,75	,72	40,67
14,55	3,65	8,85	13,70	,77	March ..	10,90	16,84	13,26	,72	41,53
14,55	3,13	6,34	14,84	,79	April ...	11,45	14,74	10,29	,67	39,65
14,55	3,20	5,32	16,85	,79	May ...	11,30	19,40	9,35	,66	40,72
14,55	3,17	8,24	14,92	,76	June ...	11,30	18,76	10,92	,70	41,64
14,55	3,28	6,08	14,94	,82	July ...	11,41	17,76	9,88	,61	39,68
14,55	3,67	6,29	14,03	,85	Aug. ...	11,21	18,35	9,22	,62	39,40
14,55	3,72	8,59	13,11	,85	Sept.	11,22	19,18	9,76	,67	40,83
14,55	3,27	7,25	13,75	,92	Oct. ...	11,29	19,03	8,82	,59	39,74
14,55	3,16	6,95	14,11	,86	Nov.	10,90	18,95	9,36	,62	39,64
14,55	3,15	9,23	13,37	,76	Dec. ...	10,92	19,56	9,88	,68	41,05
1860.										
14,55	3,01	6,35	14,47	,83	Jan.	10,80	20,02	7,99	,69	39,47
14,55	3,50	6,65	14,21	,73	Feb. ...	10,17	21,00	7,77	,68	39,63
14,55	3,74	9,59	13,09	,71	March ..	10,21	22,33	8,41	,73	41,68
14,55	3,35	6,91	14,66	,70	April ...	9,85	23,34	6,28	,71	40,18
14,55	3,25	7,38	12,67	,68	May	9,73	20,54	7,74	,76	36,56
14,55	3,24	8,54	12,26	,66	June ...	9,77	19,46	8,98	,79	39,26
14,55	3,35	4,94	14,81	,72	July ...	9,75	20,03	7,83	,76	38,39
14,55	3,49	5,21	13,71	,73	Aug.	9,73	19,67	9,65	,76	37,99
14,55	3,80	7,59	13,26	,73	Sept.	9,66	19,76	8,99	,76	39,18
14,55	3,25	4,85	13,54	,78	Oct.	9,56	19,46	7,02	,74	36,97
14,55	3,18	5,84	12,93	,76	Nov.	9,49	20,24	6,75	,79	37,27
14,55	3,18	7,09	12,07	,66	Dec.	9,53	20,12	7,17	,75	37,57

(O).—*The Import and Export Trade of the Years 1859 and 1860.*

The following summary as regards 1859, is from the "Times" of 18th January, 1861:—

"The annual statement of our foreign and colonial trade and of navigation, shows that in the year 1859 the American continent, with Cuba and the West Indies, took 40,000,000*l.* of our produce and manufactures; and India, Singapore, and Ceylon, with Australia and China, took 37,000,000*l.* more. To these great countries we disposed of nearly 80,000,000*l.* of our cotton goods and yarn out of the whole 48,000,000*l.* exported. The United States took 4,600,000*l.* of our cotton goods, 4,476,000*l.* of our woollens, 2,160,000*l.* of linens, and 1,568,000*l.* of apparel and haberdashery; India, including Singapore, took 14,290,000*l.* of cotton goods and yarn, China only 3,190,000*l.*, and 700,000*l.* of woollens; Australia, 1,870,000*l.* of apparel and haberdashery, 790,000*l.* of cottons, and 765,000*l.* of woollens.

"For our *iron* we found our principal market in the United States (3,000,000*l.*), and also for our tin (plates) and our hardwares (above 1,000,000*l.* of each); for our leather and saddlery in Australia (1,000,000*l.*); for our agricultural implements in Australia and in Russia; for beer in India (777,378*l.*) and Australia (660,358*l.*); for butter in Australia (342,914*l.*); for earthenware in the United States (600,000*l.*).

"The exports of our produce to Australia 4,000,000*l.* in 1852, were 11,000,000*l.* in 1859, and those to India have doubled since 1855; to the United States they were not 12,000,000*l.* in 1849, they were above 22,000,000*l.* in 1859; to China, 1,537,000*l.* in 1849, 4,457,000*l.* in 1859.

"To New Zealand we sent 632,907*l.* worth of our produce in 1859, not far from double what we sent only three years before.

"Our exports to the *whole world* made no progress in the year 1859. In most *European countries* the demand for our produce was slack. France took less upon the whole than in the previous year, though her demand for some articles increased. She took no less than 1,391,000 tons of coal, and 493,083*l.* worth of copper. There was a considerable increase, however, in our trade with Sweden, Norway, and Denmark; and Russia took more of our produce by nearly 1,000,000*l.*, raising her demand for machinery to 1,000,000*l.*, and for iron to 1,200,000*l.*

"Our entire *imports* for 1859 (179,182,355*l.*) were *not far from* 15,000,000*l.* *above* those of the previous year, and our *exports* (our own produce 130,411,529*l.*, foreign and colonial produce 25,281,446*l.*—in all 155,692,975*l.*) were 16,000,000*l.* *above* those of the previous year; and it must be borne in mind that the returns of the value of our *imports* include *freight*, the exports do not.

"In conducting this trade 26,520 visits were paid to ports by *British vessels*, and 22,351 by foreign. The totals require such figures to express them as were never until now employed to set forth a year's trade of a nation. The world beyond the seas, civilized and uncivilized, sent to our shores on an average *every day* merchandize of the value of nearly 500,000*l.*, and to bring it to us nearly 1,000 ships came into our ports *every week*. Our exports of produce and manufactures of the United Kingdom in the short space of *eight years* 1852-59 have exceeded in value the capital of the national debt. In ten years they have doubled; in 1849 they were 64,000,000*l.*, in 1859 they were 130,000,000*l.*

"The enormous progress of some of our *colonies and possessions* of late years has more than restored the proportions sent to foreign countries and to British possessions to what they were twenty years ago—two-thirds and one-third; in 1840 foreign countries took 34,000,000*l.*, and British possessions 17,000,000*l.*; and in 1859 foreign countries took 84,000,000*l.*, and British possessions 46,000,000*l.* The *exports* of our produce in 1859 amounted to about 4*l.* 10*s.* per individual inhabitant of the kingdom; twenty years ago they were not 2*l.*, and ten years ago they were not 3*l.*"

And the following statement of the results of 1860 is from the "Times" of 27th February, 1861:—

"The trade of the United Kingdom, in 1860, having reached an unprecedented point, the details of its distribution are of more than ordinary interest.

"Although the *total declared value of our exports* shows an *increase* of more than four per cent. over 1859, there has been a falling off of more than 5 per cent. in the shipments to our *colonial possessions*, owing to the diminished activity of the Indian demand and the stagnation in Australia. The exports to the *United States* likewise exhibit a falling off. As our consignments to our own possessions and to America constitute about *one-half* of our aggregate trade, it is a striking and encouraging circumstance that the effects of a revulsion in those quarters have been more than compensated by an increase in the various minor channels of commerce. At the commencement of the disunion crisis in America it was pointed out that the fears regarding the consequences of the diminution of orders from that country were in a great measure needless. Our traffic being so extensive, the moment a temporary check occurs in one region we force ourselves into another; and in the present case it must be borne in mind that the panic which prevents the Americans from making their usual importations prevents them at the same time from carrying on their usual competition with us in distant markets, and throws the general trade of the world more than ever into our hands.

"Moreover, the movements now in progress are especially calculated to give a new impulse to the prosperity of *India*, whither our annual shipments are already nearly equal to those to the United States.

"Among our most improving customers during the past year *Brasil* and *Buenos Ayres* figure prominently, and this progress is likely to be maintained in the former country from the introduction of railways, and in the latter from the steady increase of European immigration, which will result from the establishment of a firm Government and the augmented facilities for steam communication. Both also, as well as the neighbouring republics of Uruguay and Chili, the trade with which has greatly advanced, are able to claim a high position as regards financial credit. The time, in fact, seems at length approaching when the dream of forty years back as to the future destiny of South America will begin to find realization.

"Among *European* countries which figure best are the States of Northern Germany, these having been rendered prosperous by our grain purchases. Holland, Portugal, Spain, Sardinia, Sicily, and Belgium likewise present very favourable totals.

"The increase to *France*, although considerable, has been scarcely adequate to the expectations of the promoters of the treaty.

"Russia shows a heavy decline, and appears much more in the character of a 'sick man' than Turkey, which has taken our manufactured goods to an amount 17 per cent. in excess of that of the preceding year, and 85 per cent. in excess of the total taken by Russia. In the annexed list each country is placed in the order of the importance of its trade with us:—

(P.)—*Exports (Declared Value) of British Manufactures and Merchandise in 1859 and 1860.*

Countries.	1859.		1860.	
	£	£	£	£
1. British Possessions—				
East Indies	19,844,920		16,964,045	
Australia	11,229,448		9,707,499	
British N. America ...	3,616,236		3,737,574	
Hongkong	1,931,576		2,446,579	
British West Indies...	1,608,138		1,844,715	
Cape of Good Hope...	1,760,045		1,827,093	
Singapore.....	1,421,067		1,671,110	
Gibraltar	713,295		1,159,382	
Malta and Gozo	624,110		704,087	
Ceylon	667,387		671,624	
Channel Islands	615,330		655,699	
British Guiana.....	555,511		569,696	
Mauritius.....	567,159		538,835	
Ionian Islands.....	250,949		345,167	
British West Coast of Africa	278,971		340,311	
Natal	174,925		236,933	
British Honduras ...	115,699		142,521	
St. Helena	43,577		46,312	
Aden	43,626		45,297	
Ascension	9,634		8,685	
Falkland Islands.....	11,185		5,306	
Labuan	—		2,583	
Andaman Islands.....	—		929	
Heligoland	60,238		275	
		46,143,996		43,672,257
2. United States—				
Ports on the Atlantic	22,116,372		21,018,500	
Ports on the Pacific...	437,033		594,611	
		22,553,405		21,613,111
3. Germany—				
Hanse Towns	9,178,399		10,364,422	
Prussia.....	1,492,088		1,884,593	
Hanover	998,477		1,107,250	
Oldenburg	53,053		73,957	
Mecklenburg	61,982		61,523	
		11,783,999		13,491,745
4. South America—				
Brazil	3,685,718		4,444,512	
Buenos Ayres	958,677		1,782,399	
Chili.....	1,474,606		1,703,783	
Peru	857,568		1,381,944	
Uruguay	693,622		922,367	
New Granada	729,468		810,870	
Venezuela	317,716		323,663	
Ecuador	22,261		74,139	
		8,739,036		11,443,677
5. Holland		5,375,468		6,113,893
6. France		4,754,354		5,249,681
7. Italy—				
Sardinia	1,404,982		1,867,228	
Two Sicilies.....	1,162,335		1,321,210	
Tuscany	801,705		1,034,052	
Papal States.....	260,077		293,178	
		3,629,099		4,515,668

(P.)—Exports of British Manufactures, &c.—Contd.

Countries.	1859.		1860.	
	£	£	£	£
8. Turkey	—	3,750,996	—	4,408,649
9. <i>Russia</i> —				
Northern ports	3,491,803		2,886,839	
Southern ports	546,888		380,893	
Territory in N. E. }	13,762		600	
Asia				
Settlements in N. }	602		—	
W. America		4,053,060		3,267,732
10. China	—	2,525,997	—	2,871,849
11. Foreign West Indies	—	2,571,878	—	2,669,968
12. Spain and the Ca- nary Islands	—	2,080,749	—	2,606,802
13. Egypt, Mediterra- nean ports	—	2,175,651	—	2,479,719
14. Portugal, Madeira, and the Azores }	—	1,397,711	—	1,847,635
15. Belgium	—	1,479,270	—	1,611,899
16. Java	—	1,135,071	—	1,413,915
17. Sweden and Norway	—	1,042,441	—	1,044,751
18. Austrian Territories	—	789,881	—	993,634
19. West Coast of Africa, foreign	—	712,189	—	966,981
20. Denmark, including Iceland	—	723,933	—	729,877
21. Philippine Islands ...	—	685,490	—	674,235
22. Syria and Palestine ...	—	622,457	—	655,297
23. Mexico	—	597,899	—	462,629
24. Greece	—	262,074	—	343,548
25. Central America	—	226,720	—	182,186
26. Wallachia and Mol- davia	—	111,031	—	172,862
27. Morocco	—	96,399	—	171,209
28. Algeria	—	21,977	—	43,754
29. South Sea Islands ...	—	114,943	—	33,972
30. Persia	—	18,792	—	31,586
31. Islands in the Indian Seas	—	372	—	19,033
32. Cape Verd Islands ...	—	16,214	—	16,097
33. Siam	—	—	—	13,202
34. Tunis	—	5,597	—	3,580
35. Eastern Coast of Africa	—	4,391	—	2,812
36. French possessions in India	—	—	—	1,408
37. African ports on the Red Sea	—	201,917*	—	903
38. Bourbon	—	—	—	351
39. Greenland and Davis' Straits	—	45	—	105
40. Camboja, Cochin China and Tonquin }	—	505	—	—
	£130,411,529		£135,842,817	

* £200,000 Telegraphic Wires.

(Q.)—*Statement by Mr. Caird, in the House of Commons, on 28th February, 1861, on the Subject of the Failure of the Harvest of 1860.*

I gladly avail myself of the opportunity of appending to the preceding reports the following important statement by Mr. Caird—one of the highest living authorities on such questions—relative to the failure of the harvest of 1860:—

“ On the motion for going into Committee of Supply on 28th February, 1861.

“ Mr. Caird said he was anxious to call the attention of the House to the serious deficiency of *last harvest* (1860), by which interests of the greatest magnitude were affected. He was aware that in taking this course he was assuming considerable responsibility, but as the question had not been touched upon either in the Speech from the Throne or in the observations which fell from Ministers or the leaders of Opposition, he felt it a public duty to bring the matter under the notice of the House. (Hear, hear.)

“ It would be necessary for him to give a short history of the *weather* during the season 1859-60, and its effects upon the harvest. In *October*, 1859, we were visited by a frost more severe, probably, than any in the memory of persons now living. This not only prevented a large breadth of wheat from being sown, but its effects were felt in the almost total destruction of the Green Fodder crops. The severe winter caused great suffering to the stock farmers, and the cold wet spring which followed put them to enormous expense in buying fodder and carrying their stock forward to grass. A *cold wet summer* followed the cold spring, and though there were heavy crops of grass, little progress could be made in getting them in, and very few crops were saved. The same unpropitious weather continued during the harvest, and for thirty-five out of the forty days preceding the end of August, rain fell, and the temperature was 18 degrees below what it had been in the previous season. The few intervals of sunshine did not admit of the crops being harvested to any extent, except in the finest and earliest parts of the country, and in some of the later counties—Derbyshire, Staffordshire, Northumberland, and elsewhere—the crops in some instances remained in the field as late as January.

“ The scarcity produced by such unprecedented difficulty in recovering the corn crop was aggravated by a failure in the *potato crop*, which, although not of as much importance in this country as in Ireland, nevertheless involved an increased demand for corn.

“ He was sorry to say that the prospects of a future harvest were likewise seriously affected by the unpropitious weather which had lasted through the seed time (1860-1), and had rendered it impossible that they could hope, even at the best, for more than an average crop this year.

“ The House would not be surprised to hear that the result of so much bad weather had been highly disastrous. No reliable data existed, and all that they could hope to do was, therefore, to form an approximate idea. He had frequently pressed on the House the advantage of procuring returns of the acreage of the crops, and the advantage of such a system must now be evident. No objection would be offered by the great body of the tenant farmers, and the returns could be obtained at a very small expense. They had, however, no accurate *data* of that kind with regard to England. With regard to Ireland they had; and from them it appeared that the *wheat crop* in that country had declined *one-sixth* as compared with what it was in 1857. He did not know that there was a diminution to the same extent in England; but though they had no accurate statistics to guide them in respect to the underground crop, they did possess some facts which enabled them to form an opinion as to the yield. During many years' experience he had found the Board of Trade returns to afford a good comparative *data* of the yield, past and present. He had examined those returns for a great number of the

market towns; and, taking the five months from the 1st of September to the 1st of February for the last five years, he found that the returns for the last year (1860-1), showed a deficiency of no less than 86 per cent. Besides the means taken by the Board of Trade to collect information on this important subject, very praiseworthy efforts were made by newspapers to supply the public with authentic data. The "Agricultural Gazette" had done much in this way, and as a result of its inquiries, made an estimate which was subsequently confirmed by a return published in the "Mark Lane Express." He found that out of 318 returns regarding the wheat crop, more than three-fourths represented that in January last there was a deficiency of from 20 to 60 per cent. on the average crop. Those returns also dealt with potatoes. He had made private inquiries of eminent agriculturists in various parts of the country, and had received full corroboration of the facts which he had laid before the House. Other evidence also corroborated these facts. The returns of railways running through corn producing countries did so. The Great Northern Company complained that for the last six months there had been a falling off in the traffic in consequence of the deficiency; the Eastern Counties repeated the same tale, and the North Western had suffered from the same cause. With these facts before him he should come to the conclusion that, estimating both quantity and quality—for there was a deficiency in quality also (hear)—the yield of corn at the last wheat harvest would be at least one-third deficient. In Scotland, he was happy to say, things would be very different. The wheat harvest there had been favourable; but hon. gentlemen would understand how little that told on the general consumption of the country, when he stated that the entire wheat yield of Scotland would not supply more than ten days' consumption for the whole country. From Ireland the accounts were conflicting. It appeared that in the earlier districts there was an average, but that in the later the results had been as disastrous as in England.

"He had obtained from the Custom House the comparative returns of imports during the last five years. From these he found that for the five years preceding last year the imports of wheat and flour during the six months from August to February were on the average 2,438,000 qrs., while for the six months from August to January last they were 5,627,000 qrs., or more than double the average of the preceding five years, and more in those six months than in any one whole year, except the year 1853. Such had been the beneficial results of free trade. (Hear, hear.) While there was famine in our fields there was none among our people. (Hear, hear.) He believed that we had just reaped the worst crop since 1846-47, the time of the failure of the potato crop. In 1828, 1829, and 1830 there were three consecutive deficient crops, which were not—as was very much the case with the present deficiency—confined to this country, but extended over Europe. The consequences were the French and Belgian revolutions and an agitation for the Reform Bill. From 1836 to 1841 there were six partially deficient crops. In 1839 there were large imports and severe pressure, and discounts rose. In 1845, 1846, and 1847 there were some bad crops. The potato famine had taken place in Ireland. There were many failures in 1847, and high rates of discount. The French revolution and disturbances in all parts of the Continent took place in the following year. On they came to the period when free trade was in operation. The first deficient harvest after 1848 was in 1853. It was a deficiency of 29 per cent. That of the year 1860 he took, as he had said, at 86 per cent; but the deficient harvest of 1853 was followed by a magnificent harvest in 1854, and there was no monetary pressure of any serious character, and nothing serious occurred in the country. They now came to 1860, which appeared to be the worst crop we had had since free trade; and, unlike 1853, we had not only a bad crop, but a bad crop following a series of years of great public expenditure, while 1853 followed a series of years in which there was only a very moderate expenditure. Mr. Porter calculated that during the first fifty years of the present century this country did not receive more than *three weeks' consumption* of foreign corn in each year. In the present year it would probably not receive less than six months' consumption for the whole population. The demand for *meat and wool* had naturally turned the

124 *Results of the Trade of the United Kingdom during 1860.* [Mar.

attention of the farmers to that branch of the farming business. Accompanying that there had been a gradual rise in the rate of agricultural wages throughout the country, The consequence of all this had been, that within the last six months we had imported more foreign grain than we had done in the ten years between 1820 and 1830. (Hear, hear.) We had the satisfaction of knowing that while there had been a shortcoming in this country there had been an abundant crop on the continent of Europe, and a superabundant crop in the United States of America; so that the people of this country had no reason to fear that bread would get either excessively dear or scarce. During the six months that elapsed between August and January, 1859, our imports of corn from America amounted to 148,000 qrs; for the corresponding six months of the last and present year, our imports were 2,195,000 qrs., for which we paid 6,250,000*l.*, or nearly twenty times as much as we paid in the previous year. From Russia and France the imports of corn were also large, so that we had paid for our imports of corn this year an excess of 12,200,000*l.* over last year. (Hear, hear.) In making these large imports of grain we had necessarily incurred a great expense, and the increase in the price of bread to the people of this country had been very considerable. It had been estimated that the *wheat consumed in this country* amounted to 20,000,000 qrs. annually, so that 1*s.* a quarter on that quantity, when the price rose or fell, amounted to 1,000,000*l.* We had, however, during the last six months to pay 14*s.* a quarter more than in the preceding year, so that the cost to the country was an increase of 14,000,000*l.*"

MISCELLANEA.

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I.—*The Amended Tariff of 1860.*

WE copy from the *Economist* newspaper of 22nd September, 1860, the following convenient summary of the amended British Tariff of 1860:—

“Now that the simplified Tariff enacted in the Session of 1860, has been brought into full operation under the Act 23 and 24 Vict., cap. 110, 28th August, 1860, entitled ‘An Act to Consolidate the Duties of Customs,’ our readers will be glad to have this tariff presented to them in a concise and classified shape. Till this year (1860), Customs duties were levied on about 150 principal articles, most of them subdivided in the tariff into further different heads, so that 408 articles were separately chargeable with duty. Now, as will be seen, the articles liable to duty may all be reduced under twelve principal divisions,—and in reality under ten only; since one division contains merely those duties which are required to countervail those laid by the Inland Revenue on the same commodities produced at home, and those contained in another will cease and determine in eighteen months or less. We here give the remaining ten principal divisions, which thus properly constitute the Customs Tariff of Great Britain, with the amount of duty received under each of them in the year 1859.

	£
I.—Fermented Liquors	4,425,000
II.—Sugar	6,285,000
III.—Tobacco	5,574,000
IV.—Tea	5,409,000
V.—Coffee	431,000
VI.—Cocoa	15,000
VII.—Grain and Flour	533,000
VIII.—Fruit	565,000
IX.—Timber	615,000
X.—Pepper	111,000
	<hr/> 23,963,000

AMENDED TARIFF.—23 & 24 Vict., chap. 110.—28th August, 1860.

I.—*Fermented Liquors.*

	£	s.	d.
1. Beer and Ale	1	—	— per barrel.
2. Chloroform	—	3	— per lb.
3. Essence of Spruce	10	—	— per hundred.

I.—*Fermented Liquors—contd.*

	£	s.	d.	
4. Varnish containing spirits	-	12	-	per gallon.
5. Vinegar	-	-	3	"
Pickles in Vinegar	-	-	1	"
6. Brandy, Geneva, Rum from non-producing countries, unenumerated plain Spirits	-	10	5	"
7. Rum and similar Spirits from producing countries, Rum-Shrub, and other Liqueurs from India and the Colonies	-	10	2	"
8. Perfumed Spirits, Eau-de-Cologne, Mixed and Sweetened Spirits unenumerated	-	14	-	"
9. Wine, and Lees of Wine, (<i>foreign</i>), till December 31, 1860	-	3	-	"
Wine thereafter, if containing less than 18 degrees of proof spirit	-	1	-	"
Less than 26 degrees	-	1	9	"
Less than 40 "	-	2	5	"
Less than 45 "	-	2	11	"
If in bottles, and containing less than 40 degrees spirit	-	2	5	"
Wine, and Lees of Wine (<i>colonial</i>)	-	2	9	and 5 per cent.

" N.B.—All *Wines* containing 45 per cent. of proof spirits, to be charged as spirits.

II.—*Sugar.*

1. Sugar Candy and refined	-	18	4	per cwt.
2. White clayed	-	16	-	"
3. Yellow Muscavado	-	13	10	"
4. Brown Muscavado	-	12	8	"
5. Cane Juice or Malado	-	10	4	"
6. Molasses	-	5	-	"
Succades and Confectionary	-	-	2	per lb.

III.—*Tobacco.*

1. Unmanufactured	-	3	-	per lb.
2. Manufactured and Cigars	-	9	-	"
3. Snuff	-	6	-	"
With 5 per cent. thereon.				

IV.—*Tea.*

1. Tea	-	1	5	per lb.
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V.—*Coffee.*

1. Green Coffee	-	-	3	"
2. Kiln-dried, washed, or ground	-	-	4	"
3. Raw or dried Chicory	-	6	-	per cwt.
4. Roasted or ground Chicory	-	-	4	per lb.

VI.—*Cocoa.*

1. Raw Cocoa	-	-	1	per lb.
2. Cocoa Paste or Chocolate	-	-	2	"
3. Cocoa Shells or Husks	-	2	-	per cwt.

VII.—*Corn and Grain.*

	<i>£.</i>	<i>s.</i>	<i>d.</i>
1. Wheat and all Grain*	-	1	- per quarter.
2. Flour and Meal of all sorts	-	-	4½ per cwt.

VIII.—*Fruit.*

1. Dried, but not succades or preserves	-	7	- per cwt.
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IX.—*Timber.*

1. Hewn Timber, Firewood, Lathwood, Staves under 72 inches in length, Teak-wood, other woods for shipbuilding	-	1	- per load.
2. Wood (sawn or split), hoops, shovel hilts, staves exceeding 72 inches in length	-	2	- "
3. Furniture and hard woods	-	1	- per ton.
4. Foreign-built Ships	-	1	- "

X.—*Duties to counterveil Excise Duties.*

1. <i>Paper.</i> Brown paper, stained paper, waste paper, mill boards, books since 1801, prints	-	16	- per cwt.
Paste board, colonial and other privileged books, colonial prints	-	15	- "
(Either ½d. each, or 1½d. bound per dozen, at the option of the importer.)			
2. <i>Malt</i>	1	5	- per quarter.
3. <i>Hops</i> , till December, 1860	2	5	- per cwt.
From January 1, to December 31, 1861	1	-	- "
Thereafter	-	15	- "
4. <i>Plate</i> , gold	-	17	0 per oz. troy.
" silver	-	1	6 "
5. <i>Playing Cards</i>	-	15	0 per doz. packs.
6. <i>Dice</i>	1	1	- per pair.

" N.B.—Properly speaking the duty on spirits ought to be placed in this list, as it is now virtually the same as the Excise duty on home made spirits.

XI.—*Pepper.*

1. <i>Pepper</i>	-	-	6 per lb.
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XII.—*Terminable Duties.*

1. <i>Hats and Bonnets</i> (till March 31, 1861)	-	1	3 "
2. <i>Corks</i> (cut), till March 31, 1862	-	-	3 "

" N.B.—Besides the above, *one penny per package*, or other unit of entry (usually about *one quarter per cent.* on the value), is levied on all important articles except corn and timber; *one shilling and sixpence* on every export bill of lading; *one-eighth per cent.* addition to the duty on all *tobacco* delivered from bonded warehouses; and *one quarter per cent.* on all other goods so delivered."

* (Except Rice, which is free.)

II.—*New Indian Loan of £3,000,000, February, 1861.*

THE following letter to the *Times*, dated from the Temple, 4th February, 1861, explains very clearly the present position of the recent Indian Loans:—

"As the public is about to be called upon to subscribe a further sum of 3,000,000*l.* for the purposes of the Indian Government, it may be well to place before them the exact position of the present debt, so far as it has been affected by recent legislation. There would seem to be the greater reason for so doing, as you have recently drawn attention to the questionable way in which a large addition has been made to the stock created in 1859, which goes by the name of the Indian Five per cent. loan.

"By the 21st and 22nd of Victoria, cap. 3 (1858), power was granted to raise 8,000,000*l.* by the *issue of debentures* for a fixed period, repayable at par, which power was exercised to the full extent.

"By the 22nd of Victoria, cap. 11, further power was granted to raise 7,000,000*l.* by a similar *issue of debentures*, and this power was also exercised to the full extent.

"By the 22nd and 23rd of Victoria, cap. 39 (1859), further power was granted to raise 5,000,000*l.* either by the *issue of debentures* as before, or by the creation of *capital stock*, repayable also at par at a fixed period. The latter course was adopted, and the stock created under the powers of the Act is that which is known as the *Indian Five per cent. loan*.

"These three Acts all contained a power to raise, by any of the modes therein authorized, funds out of which to repay the loans raised under them as they might become due, but limited in each to the amounts respectively raised by virtue of any of the powers respectively granted.

"By the 23rd of Victoria, cap. 5, power was granted to raise in *such capital stock*, funds out of which to repay any *East India Bonds* (as distinguished from any bonds or debentures issued under the powers of the several Acts before-mentioned) that might from time to time be lodged for repayment by the holders, on their giving the usual twelve months' notice. Under the powers of this Act an addition of more than 3,000,000*l.* has been made to the amount of capital stock originally created, in consequence of *India Bonds* to that amount having been sent in for payment and exchanged for stock, and it is evident that it is susceptible of increase to the whole amount of the floating Indian debt known as *East India Bonds*. Such a power may or may not be exercised in practice to the full extent, but it undoubtedly exists.

"By the 23rd and 24th of Victoria, cap. 130 (1860), power was granted to raise 3,000,000*l.*, which power it is now proposed to exercise by the creation of additional *capital stock* to that amount, and for which the public are invited to tender on Friday next.

"The figures, therefore, will stand thus:—Original issue of capital stock under the 22nd and 23rd of Victoria, cap. 39, 5,000,000*l.*; addition made to ditto under the 23rd of Victoria, cap. 5, 3,079,000*l.*; addition now to be made to ditto under the 23rd and 24th of Victoria, cap. 130, 3,000,000*l.*; probable addition to ditto by repayment of debentures within the next two or three years, under the 22nd and 23rd of Victoria, cap. 39 (*viz.*, 8,000,000*l.* and 7,000,000*l.*), 15,000,000*l.*, making a total of 26,079,000*l.* And this amount is subject to a contingent increase at any time by conversion of *East India Bonds* in addition to the above amount already converted of 3,079,000*l.*"

The following is the result of the biddings for the 3,000,000*l.* on Friday, 9th February, 1861.

"It appears that the total amount of the tenders for the 3,000,000*l.* Indian loan was 13,270,800*l.*, of which about 6,000,000*l.* was at prices at and above the

minimum fixed by the Council—98½—and about 7,000,000*l.* below it. None of the tenders at the minimum have been successful, the lowest tender accepted in full being at 98*l.* 11*s.* 4*d.*, while of tenders for 681,000*l.* at 98*l.* 11*s.* 3*d.*, the proportion to be taken is only 108,200*l.* Of the remainder the principal portion was at prices ranging between 98 and 98½. These circumstances indicate that a majority of the bidders were less sanguine than the India Council, and that an insufficient estimate had been formed of the feeling in favour of the loan among the general public."

III.—*Effect of Trades Unions in Victoria (Australia), and of frequent Political Changes in New South Wales.*

THE following important article is from the *Melbourne Argus* of November, 1860 :—

"It is generally understood that for some weeks past the actual rates of wages paid to artisans connected with the building trades have been far below the nominal quotations; and that contracts have been taken by associated operatives at prices which will not enable them to earn more than from six shillings to eight shillings per day. Convinced of the impolicy of endeavouring to maintain an arbitrary and unvarying scale of remuneration, the attempt has been quietly abandoned by numbers of sensible mechanics, and considerable secessions are said to have taken place from those societies which were established partly with a view to exempt (as it was imagined) the wages of skilled labour from those fluctuations to which every other commodity is subjected. The more sagacious of the artisans are beginning to perceive that the policy into which they were beguiled by their shallow advisers defeated the very object it was designed to promote, and that, by insisting upon an artificial maximum of wages, they reduced employment to a minimum. Only such works as were absolutely necessary were engaged in by capitalists; and while a few men obtained occupation at extreme rates, numbers failed to obtain any employment whatever, and were thrown for support upon the charity of their fellow-workmen. Nor did the evil end here. Reports were transmitted to Europe of the paucity of work and the destitute circumstances of those who were compulsorily idle, and such reports very naturally operated to the prejudice of the colony and lessened the number of unassisted emigrants who selected Victoria as their destination. With no material additions to our population from external resources, there was no inducement for capitalists to build, no expansion of our seaport towns, no growth of trade, and no extension of settlement in the interior, such as immigration promotes in Canada and the United States.

"The inevitable result has been that those who were most active in their efforts to impede the operation of natural laws, and to establish a sort of Fool's Paradise in Victoria, have been first to pay the penalty of their own short-sightedness and folly. Wages have actually fallen far below the rates which would have invited the outlay of capital a short time since, and men are secretly accepting one-half, and even one-third of the rates which are ostensibly current. Nor shall we be surprised to find the more right-thinking of the operative classes, after having relinquished the delusive notion that an unalterable standard of wages can be insisted upon at a time when the prices of all articles and the profits of all trades are gravitating towards a lower level, rejecting likewise the equally fallacious expectation that a young country can make rapid progress without a constant influx of population from without; and we shall be prepared to find our skilled artisans becoming the most important solicitors for a revival of assisted immigration.

"The worst misfortune which befalls artisans, both in the mother-country and in these colonies, is the credulous faith which they repose in selfish and designing advisers of their own class, and the jealousy and distrust with which they regard the disinterested advice tendered by those who can have no motive to mislead and

no temptation to misinform. The well-paid secretary, who urges persistence in a ruinous strike, sustained by funds which afford him a handsome salary, is looked up to as an authority and accepted as a guide; but the journalist or other person who suggests that wages should be left to rise and fall according to the demand and supply of labour, and who ventures to point out that a man may be really better off with ten shillings per diem at the present moment than he was with sixteen shillings a-day a twelvemonth ago, is accused of a desire to grind the faces of the poor and to convert independent workmen into abject serfs.

"It is too much, perhaps, to expect from the associated trades a candid acknowledgment of the error they have committed in endeavouring to maintain an artificially high rate of wages, and a frank declaration of their determination to abstain from any such mischievous intermeddling for the future; but we think that the interests of the operative classes would be effectually promoted if our skilled artisans were to abandon the inconsistent line of conduct which they now pursue in openly prescribing one scale of remuneration and secretly adopting another.

"If skilled labourers would invite the flow of that capital which is now accumulating in its various reservoirs into those channels which would furnish employment to artisans, *they should publicly signify, what they privately exhibit*, their willingness to accept a rate of wages regulated by the circumstances of the times and the alteration which has taken place in the value of money, as exchangeable against every other commodity. With meat at 2d. and 8d. a-pound, bread at 10d. the four-pound loaf, fresh butter at 1s. 2d. a-pound, and most descriptions of fruit and garden produce cheap and plentiful, the condition of the mechanic in Victoria, *earning from two to three pounds a-week*, is far preferable to that of tens of thousands of highly-educated men in Europe. *But*, it is true, is too high here; but that circumstance is partly attributable to the high rates of wages hitherto prevalent; and a reduction in these will be followed by a fall in those, inasmuch as the houses which will hereafter be erected by cheaper labour, will enter into competition for tenants with those dwellings which are now extant, and the rental of which will have to be assimilated to that of the less costly and more convenient structures of a later date.

"There is another aspect in which this question ought to be considered by the operative classes. So long as the general public are under the impression that the wages of artisans in the building trades range *from fourteen to sixteen shillings per diem*, and so long as contractors know that they can engage men at *from six to eight*, the chances are that the contractor absorbs a larger share of the profit of the work executed than he is fairly entitled to, and workmen incur the odium of keeping up high prices and preventing building operations being more extensively undertaken, without in reality meriting the censure or enjoying the compensating emolument. A trader who habitually asks one price for his commodities, and takes another, is usually avoided by all except customers who are fond of haggling; and the artisan who adopts similar tactics may depend upon it that he does himself a great injury by interrupting that freedom of exchange between capital and labour which enables him to secure the best price for the industry and skill which he has to dispose of."

The *Australian Gazette* (London) of 9th February, 1861, gives the following facts relative to the recent rapid political changes in *New South Wales*:

"For the present we would deal with the case of *New South Wales*, and the history of the last five years will afford abundant evidence that something is required for the purpose of giving increased stability to the Local Government. The *first Parliament* under the new constitution, or Responsible Government, as it is termed, met on the 22nd of May, 1856. The then Ministry of Mr. Donaldson continued in office until the 21st of August following, when they resigned upon a motion being carried against them by a majority of two. The next Ministry, under Mr. Cowper, met on the 15th of September, and on the 25th—or nine days after—

wards—a vote of want of confidence having been carried, they too resigned. On the 28th October, a *third* administration was formed, and continued in office until the 4th of September of the following year, 1857, when, having been defeated on the 'Elections' Bill, they followed the steps of their predecessors. A *fourth* Ministry was formed on the 7th of September, and on the 17th of December, after being beaten on a Government bill for the assessment of stock, a dissolution of Parliament took place. The New House assembled on the 24th of March, 1858; on the passing of the Electoral Bill a second appeal to the country took place, and on the 11th of April, a second dissolution ensued. On the 20th of October following, the Ministers resigned, after sustaining a defeat by a majority of 57 to 8 upon the Education Bill. A *fifth* Government was formed, which, in its turn, was displaced on the 1st of March, 1860, by a want of confidence. With the present, or rather the late Ministry, there was a further collision in November, 1860, which will no doubt end in a resignation—a dissolution having been already ordered. So that in New South Wales there has been, in the short period of *five years and six months*, not less than *four general elections and five ministries*.

"The consequence of this state of things is, however, that which we have most to deplore. Men of ability and experience have abandoned the arena of politics, and now neither guide the Legislature by their counsels nor aid it by their experience. The ablest men retire disgusted from the management of public affairs, and seek, either in private life in the colony, or in other countries, protection from these violent attacks of party strife and angry politicians. Of the *twenty-six* gentlemen who have held office since 1856 in *New South Wales* only *ten* are now in Parliament; of these four are in the Upper House and six are found in the ranks of opposition. Two others are in England, six have retired into private life, and the remainder are dead. Of the *fifty-four* members who composed the *first House* under responsible Government *nineteen* only were in the last Parliament, and of these only four supported the Government in the measure upon which they were defeated. What would be thought of a House of Commons if, at the present moment, its members consisted of not more than one-third of those who were members four years since, and if among these there were found only one-fifth who gave their support to the present Government? Yet such is the actual state of things in *New South Wales* at the present moment, and we confess to serious misgivings as to the result of the appeal to the country which is now taking place.

"'Universal suffrage,' as it has been truly stated by the leading journal in Sydney, 'has given superiority of political power to the moveable population;' and this is not all, for the working of that suffrage has tended to depress the character of the Legislative Assembly. Colonists who knew what was the character of legislative men of former times are, it is said 'painfully impressed' with the 'deterioration' which has taken place. The facility with which men obtain the confidence of the electors is a point to which we have upon various occasions alluded when commenting upon the state of things in Victoria, and in the elder colony of New South Wales the same extraordinary credulity or 'gullibility' appears to exist in the minds of the people. 'Men,' says the *Sydney Morning Herald*, 'who have never in social or political life performed any service to the country, whose education is of the meanest kind, who would not be trusted in any position demanding either intelligence or integrity,—men who promise largely, who denounce unsparingly, who pledge and promise without reserve whatever may seem to benefit the masses, however impossible,' are those who succeed in gaining the confidence and the suffrages of the electors."

IV.—*Bank Failures in the United States in November, 1860, consequent on the Secession Movement.*

THE following paragraph from the *Times*, of 6th December, 1860, contains an outline of the earlier statements which reached this country as regards the financial effect in the United States of the great Secession Schism, occasioned by the election of Mr. Lincoln, as President, in October 1860:—

"The private telegrams from New York to-day, with six days' later news, show already a considerable recovery in the stock market. Erie had further advanced from 28 to 31, New York Central from 73 to 76½, and Illinois Central from 55 to 58. The banks also were discounting freely, having agreed to protect each other by making common cause with their stock of bullion. The accounts, however, of the rates of exchange are rather of a confused character. One telegram says the quotation was not higher than 103, notwithstanding all the efforts of the banks; another says that the range was from 100 to 107, and another that bills were still almost unsaleable. If the price of 100 was only for inferior descriptions, and 107 was the charge for bankers' draughts, then there would be no advantage on gold from this side except in cases where persons might be willing to run risks.

"The announcement of the bank failures, so far as regards those in the *Southern States*, has, of course, created no surprise, as the advices by the 'Atlantic' had mentioned that nearly the whole of these establishments were likely to break down. The correctness of the statement that the Philadelphia banks have all stopped, is open to great doubt. Pennsylvania, although the nearest to the line of Slave States, is not likely to have suffered much more than the other Northern States from the political alarm, and it is hard to suppose that her banking system has become so unsound that the whole of the twenty banks at *Philadelphia*, representing an aggregate capital of 2,400,000*l.*, can have been forced to an instantaneous stoppage. Among the twenty banks of that city, there is one called the Philadelphia Bank, with a capital of 360,000*l.*, and possibly this establishment only may be intended. The largest bank in the city is the *Farmers' and Mechanics'*, with a capital of 400,000*l.*

"At *Washington* there are three banks—the Bank of the Metropolis, the Patriotic Bank, and the Bank of Washington, and, possibly, here also it is only the Bank of Washington that is referred to. Their respective capitals are small, averaging about 60,000*l.*, and their note circulation is about 40,000*l.* At the other points, doubtless, the suspension has been general.

"At *Baltimore*, in Maryland, there are seventeen banks, with a total capital of 2,100,000*l.*, and an aggregate note circulation of 600,000*l.*, the largest of them being the Merchants' Bank, with a capital of 300,000*l.*

"At *Norfolk*, in *Virginia*, there are three banks—the Bank of Virginia, with a capital of 40,000*l.*; the Exchange Bank, with 80,000*l.*; and the Farmers', with 60,000*l.* In the entire state of Virginia the banking capital is large, the number of establishments being sixty-eight, and the total capital 3,670,000*l.* With the exception, however, of the Farmers' Bank of Richmond, reported by the previous steamer, those above mentioned are the only Virginia ones yet announced.

"At *Charleston*, South Carolina, there are nine banks, with an aggregate capital of 1,375,000*l.*, and a circulation probably of about 800,000*l.* In this city, however, according to the present telegram, the banks have only 'partially stopped payment.'

"Of course, as regards the Northern States and the bullion crisis, the difficulty will be more speedily terminated in proportion as the Southern Bank suspensions are more general, since, when a stoppage has taken place, there are no more struggles for a supply of specie. The vital question will be as to the ability of the *New Orleans banks*, their total capital being nearly 5,000,000*l.*, with a note circulation of 2,000,000*l.* It has usually been their practice to keep a strong

supply of specie, and, as the disunion movement does not seem to have been so strong in Louisiana as in some of the other states, there is an expectation that in that quarter they may be able to support themselves."

V.—*Preventible Mortality in Lancashire and elsewhere.*—Statement by
Mr. Edwin Chadwick.

THE following important passage is taken from the very able address of Mr. Edwin Chadwick before the Public Health Section of the Social Science Meeting at Glasgow, in September last (1860).

"Being impressed with the extent of evil affecting the labouring classes, developed in the course of their investigations, the common elements of which are unknown or unattended to, the foreign members of the International Statistical Congress which recently met in London, composed chiefly of men holding high permanent deliberative or executive offices under their respective governments, amongst whom were M. Quetelet and M. Visschers, of Belgium, M. Legoyt, of France—in all, fifty delegates—signed a declaration in the following terms, to which they requested the signature of Miss Florence Nighingale at their head:— 'The Congress commends to the attention of statesmen, of economists, of philanthropists, and of administrators the study of the general condition of the labouring classes, of their wants, of their resources, and of the measures for the promotion of their welfare.'

"I will not stay to comment on the fact of the elements affecting the condition of the great mass of the prominent labouring classes being declared by such high international authorities to be at this time really a new subject of study, as for practical purposes it will be found to be; but I will refer to a recent speech of an eminent political leader, made on the occasion of the foundation of a ragged school in our chief manufacturing county, in which speech he congratulated the meeting on its vast progress in physical improvement of the people, of their comforts and their clothing, as a consequence of the increase of manufacturing and commercial prosperity. 'Nor is there,' he said, 'any more certain test than the rapid increase of a population, of the physical well-being of a country.' I should have been very glad if in official reports this proposition were not proved to be wholly erroneous in its unrestrained generality, and were it not proved to be so in respect to that particular county, Lancashire, where you may frequently see similar congratulatory expressions from persons of opposite political persuasions. But it should have presented itself for inquiry, why, with so much material progress, are masses of children there, ragged and in a state of destitution, claiming the aid of charity? Mr. Edward Tuffnell, who has the superintendence of the reformatories, reports that *sixty-five per cent.* of the children found there are *orphans*. And whence this mass of orphanage? and, in Liverpool and Manchester, an excessive mass of *widowhood*, as shown by the reports, corresponding with the excessive death-rates there? The answer given on investigation is, that it arises mainly from the excess of *preventible mortality from typhus, dysentery, and other filth diseases*, which are banished from common lodging-houses, but which are rife in the cesspool-tainted houses in which the operatives are crowded, to be near their work, and for which they pay enormously high rents, on account of the monopoly of the positions.

"The members of the International Statistical Congress would recognize the fact, that a *death-rate* represents the relative amount and sum of human suffering, and is one of the best tests of the physical progress of a country. In population, as well as manufacturing prosperity, the progress of Lancashire has been the highest, and yet the physical condition of its whole population, as determined by

that test, and especially of the working population, is really the *lowest*. Recent statistics, showing the condition of the different classes of the population, have been applied for, and have not been obtained; but from the present state of the general death-rate, it may be confidently averred that their relative position has little changed. The following statistical return, which I gave in my report on the sanitary condition of the labouring population of Great Britain, and which was confirmed by the subsequent investigations of Dr. Lyon Playfair in Lancashire, shows the relative sanitary condition of such *rural districts* as those from whence the strength of the country is drawn, as contrasted with the effects of the insanitary conditions of *towns* where it is absorbed:—

Average Age of Death.

	In Manchester.	In Wiltshire.
	Years.	Years.
Professional persons and gentry, with their families....	38	50
Tradesmen and their families (in Wiltshire, farmers and graziers are included with shopkeepers).....	20	48
Mechanics, (agricultural) labourers and their families	17	33

“ Towns which were formerly in the relative sanitary condition probably that rural towns are now in, which have much open space, have, as Dr. Lyon Playfair shows, deteriorated in the physical condition of their population; and how should it be otherwise for high wages will not ward off the effects of confinement in crowded and heated factories, which are ill-ventilated; nor sleeping at night in close, ill-ventilated rooms, in an atmosphere which is a compound of that of a chimney and a privy. Indeed, it is a matter of experience, that when manufacturing prosperity has had a check, and the workmen are thrown out of employment in large numbers, the fever wards of the hospitals of the manufacturing towns are immediately thinned, and this for the simple reason, that the men are out of the crowded rooms, and, though living on less and simpler food, they are at large in the less impure air of the open streets.

“ Dr. Lyon Playfair reported that—‘ The great *infantile* mortality occurs, for the most part, among the poorer part of the population, as is seen from an examination of the return from Preston:—

Gentry	18	per cent. of deaths under 5.
Tradesmen	36	” ”
Operatives	55	” ”

This may account in a great measure, for the following very startling table, drawn up by Mr. Cartwright. It will be observed, that while in 1788 the *average age of death* was 31 years in Preston, and the percentage of *infantile mortality* 29 per cent., the average age of the same town at the present time is reduced to 19½ years, in proportion to the increase of population.

“ Similar results attend the examination of the parochial registers of other towns. Thus, I find, by an analysis of the registration books of St. Nicholas Church, in Liverpool, that a *diminution* of the average age of death has occurred: from 1784 to 1810 the mean age at death varies from 24 to 26 years; but during the last seven years it varies from 17 to 20 years.’

Table showing the Average Age of Death of all Classes in Liverpool from 1784 to 1810, and in the Years 1841-2.

	1784-1810.	1841-2.
	Years.	Years.
Gentry	43	43
Tradesmen	23½	19
Operatives	18½	16
All classes	25	20

"The like proportions will be found to prevail in other manufacturing towns. The lives of the *adult workmen* there are also relatively shortened, and Dr. Lyon Playfair, after giving a table showing this, thus recapitulates some of the results in physical deterioration in Lancashire, such as now goes on in our manufacturing towns in general:—

"The table gives the general result, that there are *every year* in Lancashire 14,000 deaths and 868,000 cases of sickness, which might be prevented; and that 11,000 of the deaths consist of adults engaged in productive labour. It further shows that every individual in Lancashire loses *nineteen years*, or nearly one-half of the proper term of his life; and that every adult loses more than ten years of life, and from premature old age and sickness much more than that period of working ability. Without taking into consideration the diminution of the physical and mental energies of the survivors, from sickness and other depressing causes: without estimating the loss from the substitution of young and inexperienced labour for that which is skilful and productive; without including the heavy burdens incident to the large amount of preventible widowhood and orphanage; without calculating the loss, from the excess of births, resulting from the excess of deaths, or the cost of maintenance of an infantile population, nearly one-half of which is swept off before it attains two years of age, and about 59 per cent. of which never become adult productive labourers; and with data, in every case, much below the truth,—I estimate the *actual pecuniary burden* borne by the community, in the support of *removeable* disease and death, in Lancashire alone, at the annual sum of *five millions of pounds sterling*. I would draw attention to the columns representing the numbers of preventible cases of death and sickness in Liverpool and Manchester, or in any other of the large towns, to show the immense amount of misery which might be saved by proper sanitary arrangements.

"'It has been stated,' Dr. Playfair continues, 'by Mr. Chadwick, that the annual slaughter, from one disease alone—typhus—a disease which formerly raged in, but is now banished, as an epidemic, from our prisons and our navies, is greater in England and Wales than the loss sustained by the allied armies at the battle of Waterloo. Yet what sort of battle do we here find fought and won by preventible disease against the population of the county of Lancaster? The labouring population of this county have always supplied a large contingent to the armies of the country. It furnished the strength of the army which fought at Flodden; and Cromwell, speaking of his Lancaster regiment, said, finer soldiers were never seen on a battle-field. The Guards, until recently, were largely recruited from Lancashire. What would be thought of a war in which 5,000 of the able-bodied men of one county fell every year in battle?—and yet this is only one-half the number annually slaughtered in that county by removeable epidemics! Yet this annual loss of able-bodied men, so much greater than the most cruel of known wars in modern times, is scarcely more severe than the loss sustained by the continued physical deterioration of the survivors. It was a matter of constant complaint to me, by the recruiting officers in the various districts of the county, that the sons are less tall than their fathers; and that the difficulty is constantly increasing of obtaining tall and able-bodied men.

" ' I found the indications of recruiting officers often shrewd and useful; but, without one exception, they complained of the difficulty of getting men 'to pass the surgeon' in this county. As an example, I may adduce the evidence of Sergeant Farrell, of the 47th Regiment:—

" ' Have you long been engaged in the recruiting service? "

" ' For nearly ten years.' "

" ' Do you find it equally easy to recruit in Lancashire now as formerly? "

" ' Where I could get *ten recruits formerly*, that I could venture to send up, I can now only get one, and that one is often rejected. Out of seven I got lately, only one passed.' "

" ' Do you think that this difficulty arises from people getting better wages at factories than in the army? "

" ' No, not at all. When persons go to work so soon, they do not grow up to be the proper size, they have always some deformity, and in the towns, somehow or other, they are pale, sickly, and thin in flesh. The only place where I can get good men is from the country districts.' "

" ' What reason does the surgeon assign for refusing the men you send from the towns? "

" ' For being too thin, not being round-chested, and not standing straight.' "

" ' From what towns do you find it most easy to procure good men? "

" ' I have been only in Yorkshire, Somersetshire, and Bristol. In Yorkshire there are some good men, better than I have found in Lancashire, but they are by far the best in Somerset. In that and other country districts I could easily get good men; but here, in Rochdale, there is almost no use in staying. I have only been able to pick out thirty good-looking men for the last eighteen months, and out of these only one was passed by the surgeon for every four rejected.' "

" Dr. Lyon Playfair continues—' Through the politeness of the head recruiting officer of the Liverpool district, which includes Lancashire, Cheshire, and parts of Shropshire, Derby, North Wales, and Staffordshire, I have obtained returns of the number of persons sent up from various districts, and rejected as unfit for service. The total number sent for inspection from all the districts to the staff surgeon in Liverpool, between the 1st of January, 1843, to 31st October, 1843, was 1,560, of which 876 were approved, 684 being rejected. In Liverpool, during the same time, 930 were presented for examination, 489, or 47 per cent. being rejected.' "

" There has been one check to the rapid physical deterioration in the manufacturing districts, in respect to the overworking of children, which I shall subsequently notice. But it is right to state that the insanitary conditions are attended with moral as well as physical deterioration; crime following most closely those conditions, where there is a perception of the short duration of life, and where the appetites for immediate enjoyment amongst the ill-educated and ill-trained are strong and reckless. Thus, taking the counties in the order of their sanitary condition—those first where the *death-rates are the lowest*—and dividing them into groups, the relative proportions of crime to each ten thousand of the population are as follows:—

	Proportion of Crimes of Violence and Passion.	Proportion of Crimes against Property with Violence and Malice.	Proportion of Crimes against the Public Peace.	All Other Crimes.
The fourteen <i>least un- healthy</i> counties	40	1·00	·90	13·69
The fourteen <i>intermediate</i> counties	60	1·73	1·60	15·51
The fourteen <i>least healthy</i> counties	66	1·69	2·50	17·75
Let us take the two extreme single counties :—				
The <i>most healthy</i> county } (Westmoreland)	17	1·71	2·47	2·48
The <i>most unhealthy</i> county } with the highest manu- facturing prosperity and wages (Lancashire)	61	1·91	4·17	20·27

" The *average age of death* of all who arrived at the adult stage was in Westmoreland, 58 years and 10 months; whilst in all Lancashire, that is to say, including also all the agricultural population of the county, it was 50 years and 2 months.

" The identity of the seats of disease and physical deterioration with the seats of moral deterioration and of crime, in the midst of manufacturing prosperity, was displayed in the Report on Preston to the Health of Towns Commissioners by the late Rev. Mr. Clay, the chaplain of the County Gaol at Preston; and the effect of sanitary measures in the reduction of crime is shown by Mr. May, of the Town Clerk's Office, Macclesfield, in the paper printed in the transactions of the Association, giving an account of the first effects of sanitary measures in that town. Worthy persons in Lancashire, who have done much for the improvement of the working classes themselves, but generalising hastily from particular instances, have, in political speeches and papers, boasted of the progress of the population, and a relative superiority in intelligence: the answer to which is, the fact of their low physical condition, and the continued disregard of the expositions for the removal of the causes. But what do we find the actual general intellectual position of the county to be in reality? According to the last of the returns of the Registrar-General, whilst the proportions of persons signing the marriage registers with marks only, were, in all England—males, 27·7 per cent.; females, 38·8 per cent.;—in Lancashire it was—males, 30 per cent.; females, 56 per cent. The progress of education, in the reduction of the number of marksmen to these yet high proportions, has been less than one per cent. per annum, so that at the present rate it will take more than half a century to fit the female population to impart to their children the lowest elements of education. In the adjacent district of the West Riding, which follows in manufacturing prosperity, Leeds has a death-rate of 80 in a 1,000, with an infantile slaughter before the attainment of their fifth year of half of all born; and what is its real educational position and progress? In 1839, the proportion of females married, who could not write their own names, was 52 per cent.; in 1857, it was still 50 per cent.

" Whilst, then, in the county most referred to for physical progression, we find the proof, when examined, of a vastly increased population, and high prosperity and high wages, is attended with excessive physical and moral deteriorations;—in Ireland there was the example of an increase of population attended with—poverty,—and under insanitary conditions, physical deteriorations. Thus, in four counties of

Ireland where the increase of the population was the greatest—there, where 61 per cent. of the habitations were mud hovels, having only one room—there the annual proportion of deaths from epidemic diseases was 47·8 per cent., and the average age of death was only 26 years and 8 months; whilst in the four counties where the rate of increase of population was only one-half, where there were only 29 per cent. of single-roomed mud-hovel habitations; there the deaths from epidemic disease were 35·5 per cent., and the average age of death 33 years and 4 months. As amidst our English town populations, heaped together in single rooms, so in the four counties where the labouring classes are living in the greatest proportion in single-roomed mud hovels, and where there is the largest increase of population, there also there is corresponding moral deterioration, and just double the average of crimes of violence and of passion.

"It is right to state, in relation to these instances, to guard against erroneous political speculation, that in New York and other American cities, the insanitary conditions and overcrowding is often as great; as also, according to the information I have received, the death-rates and the physical deterioration, although population and wages increase even more rapidly than in our manufacturing districts. Thus, Mr. William Chambers states:—'In New York there is a place called the Five Points, a kind of St. Giles's; and here, and in some other quarters of this great city, you see and hear of a sink of vice and misery resembling the more squalid and dissolute parts of Liverpool or Glasgow. For this the stranger is not prepared by the accounts he has received of the condition of affairs in America. Wages of manual labour, a dollar to two dollars a-day. Servants, labourers, mechanics, wanted. The rural districts crying for hands to assist in clearing and cultivating the ground. Land to be had for the merest trifle. The franchise, too, that much-coveted boon, offered to all. From whatever cause it may originate, New York is beginning to experience the serious pressure of a vicious and impoverished class. Prisons, hospitals, asylums, juvenile reformatories, almshouses, houses of refuge, and an expensive, though strangely ineffective police, are the apparatus employed to keep matters within bounds. The governors of a cluster of penal and beneficial institutions report that in 1852 they expended 465,109 dollars in administering relief to 80,357 persons. Passing over any notice of the many thousands, including crowds of recently arrived immigrants, assisted by other associations, we have here a number equal to one in seven of the population coming under review as criminals or paupers in the course of the year—a most extraordinary thing to be said of any place in a country which offers such boundless opportunities for gaining a respectable subsistence.'

"In this, and in other American cities, the conditions of such districts are as little known as our own to the more respectable classes of inhabitants, and the terms of the resolution of the International Statistical Congress would be applicable to a greater extent than might be conceived. When we sent inspectors from the General Board of Health, upon petitions, to examine the sanitary conditions of towns, one of the instructions we gave them was, that they should endeavour to get mayors, town councillors, and particularly those who were opposed to the introduction of the law, to accompany them in their inspections. In our report laid before Parliament, we thus referred to these inspections:—'A further common and important feature observed in the local inspections has been the discovery, by the chief inhabitants, or those holding leading local position and office, who accompanied the inspector in his perambulation, how little they themselves knew of the real condition of their own town, or of those portions of it which are occupied by the majority of the inhabitants. The places properly designated as 'fever nests' the seats of epidemics, it appeared had never been visited by them, and were almost as much unknown to them as any foreign territory which they had never seen. On these occasions they frequently acknowledged frankly, that they had been, until then, entirely unaware of the condition of the places visited. The town clerk of one town, writing to the inspector, states, that they were unaware, until his visit and report, what the condition of their town really was.' "

ABSTRACT OF THE REGISTRAR-GENERAL'S RETURN
OF THE
MARRIAGES IN ENGLAND AND WALES DURING THE THIRD QUARTER
(JULY—SEPTEMBER), AND OF THE BIRTHS AND DEATHS DURING
THE FOURTH QUARTER (OCTOBER—DECEMBER), OF 1860.

THIS Return comprises the BIRTHS and DEATHS registered by 2,197 Registrars in all the Districts of England during the autumn quarter that ended on December 31st, 1860; and the MARRIAGES in 12,449 churches or chapels, about 4,848 registered places of worship unconnected with the Established Church, and 681 Superintendent Registrars' offices, in the quarter that ended on September 30th, 1860.

The Quarterly Returns are favourable, and imply that the population was not only more prosperous but healthier than usual. Births slightly decreased, but Marriages became more frequent, and the mortality fell below the average. The improvement in health was greatest in the town districts.

The accounts of births and deaths for the year 1860 show an increase of the birth and a decrease of the death-rate.

MARRIAGES.—81,144 persons married in the quarter that ended on September 30th; and the marriage-rate was 1·608, or higher than in any corresponding quarter since 1856, but slightly below the average of ten summer quarters.

The increase of marriages was most striking in London and Lancashire,

BIRTHS.—162,248 children were born and registered in the last quarter of the year 1860; or more by 4,266 than were registered in the last quarter of 1858,

ENGLAND :—MARRIAGES, BIRTHS, and DEATHS, returned in the Years
1854-60, and in the QUARTERS of those Years,

Calendar Years, 1854-60 :—Numbers.

Years	'60.	'59.	'58.	'57.	'56.	'55.	'54.
Marriages No.	—	167,723	156,070	159,097	159,337	152,113	159,727
Births..... „	693,430	689,881	655,481	663,071	657,453	635,043	634,405
Deaths..... „	422,500	441,249	449,656	419,815	390,506	426,703	437,905

QUARTERS of each Calendar Year 1854-60.

(I.) MARRIAGES :—Numbers.

Qrs. ended last day of	'60.	'59.	'58.	'57.	'56.	'55.	'54.
March .....No.	35,198	35,382	29,918	33,321	33,427	29,186	33,234
June „	43,833	42,042	39,890	41,267	38,820	38,549	40,518
Septemb. „	40,572	39,803	38,599	38,669	39,089	37,308	38,182
Decembr. „	—	50,496	47,663	45,840	48,001	47,070	47,793

QUARTERS of each Calendar Year, 1854-60.

(II.) BIRTHS:—Numbers.

<i>Qrs. ended last day of</i>	'60.	'59.	'58.	'57.	'56.	'55.	'54.
March .....No.	183,206	175,532	170,959	170,480	169,250	166,225	160,785
June „	173,914	175,864	169,115	170,444	173,263	165,277	172,457
Septmbr. „	164,062	168,394	157,445	161,181	157,462	154,700	154,724
Decmbr. „	162,248	170,091	157,962	161,016	157,478	148,841	146,439

(III.) DEATHS:—Numbers.

<i>Qrs. ended last day of</i>	'60.	'59.	'58.	'57.	'56.	'55.	'54.
March .....No.	122,642	121,682	125,819	108,665	103,014	134,542	111,843
June „	110,878	105,778	107,142	100,046	100,099	106,493	102,586
Septmbr. „	86,423	104,339	98,142	100,528	91,155	87,646	113,843
Decmbr. „	102,557	109,450	118,553	110,576	96,238	97,022	109,633

and 7843 less than the number in the last quarter of 1859. The birth-rate of the quarter was 3·203; the average of the quarter being 3·232.

688,490 children were registered in the year 1860; and the annual birth-rate was 3·418, making ·014 above the annual average. Taking one day with another through the year, 1,867 children were born daily.

INCREASE OF POPULATION.—The births exceeded the deaths in the quarter by 59,691, and that was the natural increase of the population.

In the year the *natural increase* of England and Wales was 269,980 souls; 713 daily. If Scotland and Ireland increased at the same rate the natural increase of the population of the United Kingdom must have been at the rate of 1,069 daily.

Emigration carried off a part of the increase. In the quarter about 7,074 English emigrants sailed from the ports at which there are Government Emigra-

**ENGLAND:—Annual Rate Per Cent. of PERSONS MARRIED, BIRTHS, and DEATHS,
during the YEARS 1854-60, and the QUARTERS of those Years.**

Calendar YEARS, 1854-60:—General Percentage Results.

YEARS	'60.	Mean '50-'59.	'59.	'58.	'57.	'56.	'55.	'54.
Estmtd. Popln. of England in thousands in middle of Year	19,994,	—	19,745,	19,523,	19,305,	19,045,	18,787,	18,619,
Persons Mar- ried Per ct. }	—	1·692	1·700	1·598	1·648	1·674	1·620	1·716
<i>Births</i> „	3·418	3·404	3·492	3·357	3·435	3·452	3·380	3·407
<i>Deaths</i> „	2·113	2·218	2·235	2·303	2·175	2·050	2·266	2·352

QUARTERS of each Calendar Year, 1854-60.

(I.) PERSONS MARRIED:—Percentages.

Qrs. ended last day of	'60.	Mean '50-'59.	'59.	'58.	'57.	'56.	'55.	'54.
March...Per ct.	1·420	1'416	1·462	1·248	1·408	1·416	1·266	1·456
June..... "	1·762	1'704	1·712	1·642	1·714	1·638	1·648	1·750
Septmbr. "	1·608	1'630	1·602	1·566	1·592	1·626	1·574	1·626
Decmbr. "	—	2'000	2·020	1·930	1·876	1·990	1·978	2·030

(II.) BIRTHS:—Percentages.

Qrs. ended last day of	'60.	Mean '50-'59.	'59.	'58.	'57.	'56.	'55.	'54.
March...Per ct.	3·693	3'554	3·621	3·567	3·600	3·585	3·603	3·520
June "	3·495	3'558	3·577	3·480	3·548	3·656	3·534	3·722
Septmbr. "	3·250	3'278	3·377	3·195	3·308	3·275	3·261	3·294
Decmbr. "	3·203	3'232	3·402	3·198	3·295	3·264	3·128	3·111

(III.) DEATHS:—Percentages.

Qrs. ended last day of	'60.	Mean '50-'59.	'59.	'58.	'57.	'56.	'55.	'54.
March...Per ct.	2·472	2'460	2·512	2·625	2·295	2·182	2·916	2·449
June..... "	2·228	2'195	2·153	2·205	2·083	2·112	2·277	2·214
Septmbr. "	1·712	2'042	2·093	1·992	2·063	1·896	1·848	2·423
Decmbr. "	2·024	2'182	2·189	2·400	2·263	1·995	2·039	2·329

tion Offices; nearly in equal proportions to the United States and the Australian colonies.*

PRICES, THE WEATHER, AND PAUPERISM.—The scarcity or the abundance of the principle articles of food is shown by their prices.

Wheat was 56s. 9d. a quarter; or 31 per cent., higher in price than it was in the corresponding quarter of 1859. *Beef* at the Leadenhall and Newgate Markets was sold, by the carcase at 4½d. a pound; or nearly ½d. less. *Mutton* was on an average 5½d. a pound, and remained the same as in the last months of 1859. The *potato crop* partially failed; and York Regents, at the Waterside Market, were sold at 122s. 6d. a ton; or at the rate of 1½ lb. for a penny. The price of this universal article of food rose progressively in the last three months of the three

* From a Return with which the Registrar-General has been favoured by the Emigration Commissioners: the number returned as of English origin was 4,959, while the birthplace of 7,185 emigrants was not distinguished; in the above statement a proportional number of these have been added to those returned as of English origin.

years 1858-59-60 from 87s. 6d. to 102s. 6d. and 122s. 6d. a ton. To supply its deficiency other antiscorbutic vegetables, fruit, or herbs are required.

The meteorology of the season was peculiar, and is fully described by Mr. Glaisher. The season was unusually cold; and on December 18th, and afterwards, the cold became intense. On Christmas Day, 25th, the temperature of the air fell to 7°, on the 28th to 8° Fahrenheit. The extreme temperatures varied in different parts of the country; thus on Christmas Day the temperature fell in Guernsey to

CONSOLS, PROVISIONS, PAUPERISM, and TEMPERATURE, in each of the nine
QUARTERS ended 31st December, 1860.

1	2	3	4 5		6	7 8		9
Quarters ending	Average Price of Consols (for Money).	Average Price of Wheat per Quarter in England and Wales.	Average Prices of Meat per lb. at Leadenhall and Newgate Markets (by the Carcase), with the Mean Prices.		Average Prices of Potatoes (York Regents) per Ton at Waterloo Market, Southwark.	Pauperism.		Mean Tem- pera- ture.
			Beef.	Mutton.		Quarterly Average of the Number of Paupers relieved on the last day of each week.	In-door.	
1858	£	s. d.	d. d. d.	d. d. d.	s. s. s.			
31 Dec.	98½	41 9	4—6½ 5½	4½—6½ 5½	80—95 87	115,751	710,904	43·8
1859								
31 Mar.	95½	40 8	4½—6½ 5½	4½—7 5½	80—100 90	122,854	742,964	43·3
30 June	92½	47 3	4½—6½ 5½	5—7 6	85—110 97	109,150	710,410	53·7
30 Sept.	95½	44 0	4½—6½ 5½	4½—6½ 5½	65—105 85	100,582	682,867	62·8
31 Dec.	96½	43 4	4—6½ 5½	4½—6½ 5½	85—120 102	109,429	683,962	43·3
1860								
31 Mar.	94½	44 5	3½—6½ 5½	4½—6½ 5½	115—145 130	118,523	717,264	38·8
30 June	94½	52 8	4½—6½ 5½	5½—7½ 6½	125—160 142	107,050	692,384	50·5
30 Sept.	93½	59 1	4½—7 5½	5½—7½ 6½	125—145 135	101,680	667,680	56·2
30 Dec.	98½	56 9	3½—6½ 4½	4½—6½ 5½	115—130 122	115,158	673,680	42·6

Col. 6 is deduced from the Weekly Tables published in the *Economist*. The average of the highest and of the lowest weekly prices is here shown in cols. 4, 5, and 6, and not the absolute highest or lowest price quoted at any period of the quarter.

Cols. 7 and 8 are deduced from the Returns of the Poor Law Board. The Returns now relate to 645 Unions, &c., comprising a population of 17,670,935 (in 1851), and do not include the paupers of parishes, &c., incorporated under Gilbert's Act, or still under the 43rd Elizabeth; Lunatic Paupers in Asylums and Vagrants relieved in the above Unions are also excluded. They amounted on January 1st, 1858, to—Insane Persons, 19,487; Vagrants, 2,265. The rest of the paupers on that day amounted to 880,280.

36°. Helston to 32°, Truro to 26°, Ventnor to 24°, and on the south coast to 17° and 20°; these temperatures gradually decreasing in the latitude of 51½° to 6°, 7° and 8°; and further north to zero; at Nottingham the lowest reading was noted as 8° *below zero*; further north than 54° of latitude the readings increased to 13° at Alnwick, and 16° at Scarborough.

The atmospheric pressure was also low, and a large amount of rain fell in December; the quantity varying in different parts. The rain-fall of the year at Greenwich was 32 in., at Truro 50·7 in., at Barnstaple 50·0 in., at Lampeter 54·3 in., at Stonyhurst 50·4 in., the four highest; at Liverpool 26·7 in., Grantham 28·1 in., Gloucester 28·1 in., Rose Hill (Oxford) 25·4 in.; the London Stations, Battersea, Whitehall, and Guildhall, 27·7.

Feverism gradually declined; and the paupers fell from 826,000 to 793,391 and 788,838 receiving relief on an average during the last quarters of the years 1858-59-60.

STATE OF THE PUBLIC HEALTH.—102,557 deaths were registered in the last quarter of the year 1860, and the annual rate of mortality during the season was 2·024. The mortality was 0·158 below the average.

Upon making up the account for the year the deaths are found to be 422,500; and the annual rate of mortality 2·113; or a little more than 21 in 1,000. The average of the preceding ten years is 23. So one life in every 1,000 living was saved.

Yet the mortality of England and Wales is still greatly in excess of the rate experienced in the *least unhealthy* districts. The deaths instead of 102,557 would at that rate have been 79,283; so during the 92 days 23,274 persons died unnatural deaths in the least unhealthy country in Europe.

The *densest districts* are still the *unhealthiest*. In the population of *town districts* exceeding eight millions at the last census, the mortality was at the rate of 23 in 1,000; in the *country districts*, of more than nine millions, the rate of mortality was 18 in 1,000; so the chances of dying in the two groups of districts were as 23 to 18. There is a wide field open for sanitary improvement in the country as well as in towns, and it is gratifying to find that the progress is now evident; for the mortality of the town districts has declined from 25 to 23, and of the country districts from 19 to 18.

Upon looking at the country generally we find that the *epidemic diphtheria* still prevails in parts of the kingdom; measles, whooping-cough, small-pox, scarlatina, fever are also so frequently mentioned in the Registrar's notes that they may be considered prevailing epidemics.

It is the characteristic of these symtotic diseases that they do not depend upon general atmospheric conditions, but are often very fatal in one community, while they are entirely absent from another in the same climate.

In LONDON the mortality was below the average; the deaths were 15,197.

In the SOUTH EASTERN COUNTIES, Surrey, Kent, Sussex, Hampshire and Berkshire, the mortality was much below the average of the same season of the two preceding years; the deaths were 8,163.

In the SOUTH MIDLAND COUNTIES 6,020 persons died; the mortality in nearly every county being *below* that of the two preceding years.

In the SOUTH EASTERN COUNTIES 5,290 deaths were registered; *less* by five hundred than in the corresponding quarter of the previous year.

The deaths (8,303) in the SOUTH-WESTERN COUNTIES were *less* by 1,800 than the deaths in the corresponding quarter of 1858. The reduction was observed in all the counties, Wilts, Dorset, Devon, Cornwall, and Somerset.

The 12,019 deaths in the WEST MIDLAND COUNTIES show an improved state of health, for the number is *less* by 2,528 than the deaths in the autumn quarter of 1858; and the reduction is evident in every county. Bristol, Cheltenham, and Birmingham were comparatively healthy, and so were the usually insalubrious districts of South Staffordshire.

In the NORTH MIDLAND COUNTIES the *reduction of mortality was great*; the deaths from 7,986 in 1858 fell to 5,897. Each county and nearly every district exhibited improvement. In Nottingham the deaths fell from 732 in 1858 to 414.

The mortality was exceedingly high ; and it has now fallen within the usual limits. The diminished fatality is ascribed by the Registrars to sanitary arrangements, and to the judicious activity of the health officers. Measles have been fatal in thirty-four cases at Derby ; where the total deaths were 297.

DEATHS in the Autumn Quarters, ended December 31st, 1853-60.—Numbers.

DEATHS, &c.	1860.	Total 1860-69, (10 Years.)	1859.	1858.	1857.	1856.	1855.	1854.	1853.
In 125 Districts and 23 Sub-districts, comprising the <i>Chief Towns</i>	56,338	557,581	57,487	65,596	80,132	52,068	61,985	59,660	57,635
In the remaining Districts and Sub-Districts of England and Wales, comprising chiefly <i>Small Towns and Country Parishes</i> ...	46,219	477,716	52,023	52,957	50,444	44,152	45,087	49,973	45,495
All England	102,557	1,035,297	109,460	118,553	110,576	96,238	97,022	109,633	103,130

AREA, POPULATION, DEATHS, and MORTALITY per Cent. in the Autumn Quarters, ended December 31st, 1850-60.

GROUPS.	Area in Statute Acres. (England.)	Population Enumerated. (England.)		Deaths in 10 Autumn Quarters, 1850-59.	Average Annual Rate of Mortality per Cent. of 10 Autumn Quarters, 1850-59.	Annual Rate of Mortality per Cent. in the Autumn Quarter 1860.
		June 6-7th, 1841.	March 31st, 1851.			
In 125 Districts, and 23 Sub-Districts, comprising the <i>Chief Towns</i>	No. 2,149,800	No. 6,838,069	No. 8,247,017	No. 557,581	Per ct. 2.494	Per ct. 2.269
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly <i>Small Towns and Country Parishes</i>	35,175,115	9,076,079	9,680,592	477,716	1.920	1.789
All England	37,324,915	15,914,148	17,927,609	1,035,297	2.182	2.024

The deaths in the NORTH WESTERN COUNTIES were 17,207 ; the deaths being nearly the same number as in the year 1859 but *less* by 2,898 than in 1858. Those who have watched the progress of the health of *Liverpool* will observe with gratification that the mortality of the two districts of *Liverpool* and *West Derby* fell successively from 3,912 to 3,085, and to 2,993, in the last quarters of the three years 1858-59-60. The increase of deaths in the *Dale Street* sub-district is ascribed by the Registrar to the inclemency of the weather, and to the privations and diseases that are caused by intoxicating drinks. In *Manchester* and *Salford* there is a corresponding improvement. The young children which were formerly not attended by medical men in illness now obtain the advantages of medical advice, chiefly through the Registrar requiring a medical certificate of the cause of death. It is "a singular instance," Mr. Leigh says, "of a great and salutary change in the "habits of a class, effected by a comparatively simple cause."

**MARRIAGES Registered in Quarters ended 30th September, 1858-60; and
BIRTHS and DEATHS in Quarters ended 31st December, 1858-60.**

1	2	3	4 5 6		
DIVISIONS. (England and Wales.)	AREA in Statute	POPULATION, 1851. (Persons.)	MARRIAGES in Quarters ended 30th Sept.		
			'60.	'59.	'58.
	Acres.	No.	No.	No.	No.
ENGLD. & WALES.... Totals	37,324,915	17,927,609	40,572	39,803	38,599
I. London	78,029	2,362,236	7,707	7,119	6,950
II. South Eastern	4,065,935	1,628,416	3,184	3,256	3,107
III. South Midland	3,201,290	1,234,332	1,959	2,040	2,162
IV. Eastern	3,214,099	1,113,982	1,572	1,681	1,799
V. South Western	4,993,660	1,803,261	3,265	3,354	3,178
VI. West Midland	3,865,332	2,136,573	4,860	4,825	4,729
VII. North Midland	3,540,797	1,215,501	2,261	2,322	2,207
VIII. North Western	2,000,227	2,488,438	7,326	6,752	6,377
IX. Yorkshire	3,654,636	1,789,047	4,153	4,103	3,906
X. Northern	3,492,322	969,126	2,119	2,060	1,998
XI. Monmthsh. & Wales	5,218,588	1,186,697	2,166	2,291	2,186

7	8	9	10	11	12	13
DIVISIONS. (England and Wales.)	BIRTHS in Quarters ended 31st December.			DEATHS in Quarters ended 31st December.		
	'60.	'59.	'58.	'60.	'59.	'58.
	No.	No.	No.	No.	No.	No.
ENGLD. & WALES.... Totals	162,248	170,091	157,962	102,557	109,450	118,553
I. London	23,234	23,626	22,829	15,197	15,884	17,835
II. South Eastern	13,719	14,642	13,420	8,163	8,989	9,485
III. South Midland	9,959	10,617	9,945	6,020	6,829	6,273
IV. Eastern	8,351	9,252	8,531	5,290	5,787	5,967
V. South Western	13,455	14,693	13,613	8,303	9,556	10,102
VI. West Midland	20,317	21,377	20,002	12,019	13,679	14,547
VII. North Midland	10,571	11,259	10,115	5,887	7,054	7,986
VIII. North Western	24,909	25,584	23,402	17,207	17,089	20,105
IX. Yorkshire	17,617	18,002	16,444	11,686	11,684	12,534
X. Northern	9,951	10,158	9,789	6,299	6,154	6,157
XI. Monmthsh. & Wales	10,165	10,881	9,872	6,486	6,745	7,262

REMARKS ON THE WEATHER,

DURING THE QUARTER ENDING 31ST DECEMBER, 1860.

By JAMES GLAISHER, Esq., F.R.S., &c., Sec. of the British Meteorological Society.

With the exception of the last ten days in *October*, and the first ten days in *December*, the weather has been cold throughout the quarter. The deficiency of temperature was large about the 12th of *October*, was about 3° below the daily average in *November*, and was very large from the 18th to the 29th of *December*, the cold having been singularly severe between these days, exhibiting a great contrast to the weather at the beginning of the month. On *December* 5th and 6th the excess of temperature above the average was 9° ; from the 18th to the 23rd it was from 7° to 10° below each day; as large as 15° on the 24th; 16° on the 25th; and 14° on the 29th. On the 7th day the temperature in the neighbourhood was as high as 54° , and on the 25th and 29th was as low as 7° and 8° . These latter temperatures are very remarkable for *December*.

Passing now to different parts of the country, on *Christmas Day* the lowest temperature at *Guernsey* was 30° ; at *Helston* was 32° ; at *Truro* 26° at *Ventnor* 24° ; and on the south coast of *England* from 17° to 20° ; these temperatures gradually decreased to 6° , 7° , and 8° in the latitude of $51\frac{1}{2}^{\circ}$; and to 0° (*Zero*) at lat. $51^{\circ} 50'$; was between 0° and -8° between the parallels 52° and 54° ; at *Nottingham* the lowest reading was noted as -8° ; and above the parallel 54° the readings gradually increased from 0° to 12° at *Alnwick*; the temperature at the *Isle of Man* was 15° ; on the west coast of *Dumfries*, and the east coast of *England* from *Scarborough* to *Edinburgh*, being about 16° , the temperature of the sea being about 44° at the same time.

The range of temperature in *December* was very large at all places.

In the year 1846 the mean temperature of *December* was 32.9° , being $3^{\circ}.4$ lower than the month just passed. The hottest *December* in the 20 years was $47^{\circ}.6$ in the year 1852, which was $11^{\circ}.8$ warmer than that of 1860.

The mean high day temperature in *October* was $58^{\circ}.6$, being $\frac{1}{2}^{\circ}$ above; of *November* was $46^{\circ}.7$, being $2^{\circ}.7$ below; and of *December* was $40\frac{1}{2}^{\circ}$ being $4^{\circ}.7$ below their respective averages.

The mean low night temperature of *October* was $44\frac{1}{2}^{\circ}$, being 1° above; of *November* was $35\frac{1}{2}^{\circ}$, being $2\frac{1}{2}^{\circ}$ below, and of *December* was $31^{\circ}.9$, being $8\frac{3}{4}^{\circ}$ below their respective averages.

The mean temperature of *October* was 1° above; of *November* was $2\frac{3}{4}^{\circ}$ below; and of *December* was 4° below their averages as found from the observations of the preceding 19 years.

The pressure of the atmosphere was slightly above its average in *October*, and below both in *November* and *December*, being smaller in *December* than in any *December* for 20 years.

The fall of *Rain* was slightly deficient in the quarter, and amounted to 32 in.

in the year. This was exceeded in the years 1821, 1824, and 1852, but is greater than in all other years since 1815, as is shown in the following table:—

FALL OF RAIN at GREENWICH, in each Year from 1815 to 1860.

Years.	Fall of Rain.	Years.	Fall of Rain.	Years.	Fall of Rain.	Years.	Fall of Rain.	Years.	Fall of Rain.	Years.	Fall of Rain.
	Inches.		Inches.		Inches.		Inches.		Inches.		Inches.
1815	22.5	1823	27.1	1831	30.8	1839	29.6	1847	17.8	1854	18.7
'16	30.1	'24	36.3	'32	19.3	'40	18.3	'48	30.2	'55	21.1
'17	29.0	'25	24.6	'33	23.0	'41	33.3	'49	23.9	'56	22.2
'18	25.7	'26	23.0	'34	19.6	'42	22.6	'50	19.7	'57	21.4
'19	31.1	'27	24.9	'35	24.9	'43	24.6	'51	21.6	'58	17.8
'20	27.7	'28	31.5	'36	27.1	'44	24.9	'52	34.2	'59	25.9
'21	34.5	'29	25.2	'37	21.0	'45	22.4	'53	29.0	'60	32.0
'22	27.7	'30	27.2	'38	23.8	'46	25.3				

The mean temperature of the air at Greenwich for the three months ending November, constituting the three autumn months, was 48°·3, being 1°·1 below the average of the preceding 89 years.

1860.	Temperature of										Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
	Air.			Evaporation.		Dew Point.		Air—Daily Range.						
	Months.	Mean.	Diff. from Average of 89 Years.	Diff. from Average of 19 Years.	Mean.	Diff. from Average of 19 Years.	Mean.	Diff. from Average of 19 Years.	Mean.	Diff. from Average of 19 Years.	Water of the Thames.	Mean.	Diff. from Average of 19 Years.	Mean.	Diff. from Average of 19 Years.
Oct.	50.6	+1.2	+0.9	49.1	+0.9	47.6	+1.7	14.1	-0.5	51.6	.350	+0.019	3.7	+0.2
Nov.	40.8	-1.6	-2.7	39.9	-2.0	38.9	-1.3	11.4	-0.2	46.1	.237	-0.019	2.7	-0.2
Dec.	34.2	-2.7	-4.0	36.2	-3.6	33.5	-3.6	8.6	-0.9	39.6	.199	-.036	2.2	-0.4
Mean.....	42.6	-1.0	-1.9	41.4	-1.6	40.0	-1.1	11.4	-0.5	45.8	.253	-.012	2.9	-0.1

1860. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Horizontal Movement of the Air.	Reading of Thermometer on Grass.				
	Mean.	Diff. from Average of 19 Years.	Mean.	Diff. from Average of 19 Years.	Mean.	Diff. from Average of 19 Years.	Amnt.	Diff. from Average of 45 Years.		Number of Nights it was			Lowest Reading at Night.	Highest Reading at Night.
										At or below 30°.	Between 30° and 40°.	Above 40°.		
Oct.	89	+ 3	In. 29.856	+ .174	Gr. 541	+ 3	In. 1.6	-1.2	Miles. 260	3	15	13	27.0	50.7
Nov.	93	+ 4	29.696	-.064	560	+ 3	2.5	+0.1	184	16	12	2	21.4	43.0
Dec.	92	+ 3	29.491	-.250	551	- 1	2.3	+0.9	187	19	10	2	2.0	43.0
Mean.....	91	+ 3	29.681	-.073	547	+ 1	Sum 6.9	Sum -0.2	Mean 210	Sum 38	Sum 27	Sum 17	Lowest 2.0	Highest 50.7

Notes.—In reading this table it will be borne in mind that the sign (—) minus signifies below the average, and that the sign (+) plus signifies above the average.

ENGLAND.—*Meteorological Table, Quarter ended 31st December, 1860.*

1	2	3	4	5	6	7	8	9
NAMES OF STATIONS.	Mean Pressure of Dry Air reduced to the Level of the Sea.	Highest Reading of the Thermo- meter.	Lowest Reading of the Thermo- meter.	Range of Tem- perature in the Quarter.	Mean Monthly Range of Tem- perature.	Mean Daily Range of Tem- perature.	Mean Tem- perature of the Air.	Mean Degree of Hu- midity.
	in.	°	°	°	°	°	°	
Guernsey	29·524	61·5	29·0	32·5	20·6	5·8	47·6	89
Exeter	29·583	65·2	15·9	49·3	28·0	9·4	44·4	91
Ventnor	29·580	63·0	22·0	41·0	29·0	6·9	43·0	—
Barnstaple	29·563	66·5	12·4	54·1	36·6	11·1	45·0	85
Royal Observatory	29·608	68·5	8·0	60·5	36·3	11·3	42·2	91
Royston	29·615	69·6	1·1	68·5	39·4	11·1	41·8	89
Lampeter	29·568	68·0	0·6	67·4	39·8	13·6	41·5	87
Norwich	29·616	65·0	1·0	64·0	37·0	9·8	42·2	91
Belvoir Castle	29·569	67·0	—1·0	68·0	37·8	10·7	41·4	86
Liverpool	29·640	62·4	16·2	46·2	26·1	7·3	43·4	85
Wakefield	29·609	65·2	—4·0	69·2	39·0	11·9	41·3	86
Leeds	29·627	63·0	3·0	60·0	35·2	10·9	42·1	87
Stonyhurst	29·558	59·9	6·7	53·2	31·9	7·9	41·3	85
Scarborough	29·656	58·0	16·0	42·0	28·6	5·1	42·2	87
Isle of Man	29·577	63·7	12·0	51·7	31·8	8·7	43·5	89
North Shields	29·594	62·0	6·8	55·2	32·1	8·0	40·5	92

10	11	12	13	14	15	16	17	18
NAMES OF STATIONS.	WIND.					Mean Amount of Cloud.	RAIN.	
	Mean estimated Strength.	Relative Proportion of					Number of Days on which it fell.	Amount collected.
		N.	E.	S.	W.			
								in.
Guernsey	1·7	8	7	8	7	6·3	61	14·1
Exeter	—	8	9	7	9	—	46	10·3
Ventnor	—	7	9	6	8	—	43	9·2
Barnstaple	1·5	5	10	8	7	3·8	51	11·0
Royal Observatory	—	6	7	7	9	7·5	38	6·5
Royston	—	7	7	8	8	6·9	63	6·1
Lampeter	0·8	5	9	7	7	7·0	48	12·7
Norwich	1·4	5	7	10	9	7·8	35	7·1
Belvoir Castle	1·9	6	5	11	8	7·2	51	6·0
Liverpool	—	—	—	—	—	7·6	46	6·3
Wakefield	1·6	7	9	5	9	7·5	68	8·7
Leeds	1·7	9	7	7	7	8·5	53	6·6
Stonyhurst	0·6	7	9	5	8	7·4	64	14·0
Scarborough	3·2	5	11	10	6	—	36	8·5
Isle of Man	—	8	7	7	8	6·3	47	9·9
North Shields	1·6	7	6	9	7	6·7	74	10·6

Trade of United Kingdom, 1860-59-8.—*Distribution of Exports from, United Kingdom, according to the Declared Real Value of the Exports; and the Computed Real Value (ex-duty) of Imports at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (excluding Gold and Silver), Imported from, and Exported to, the following Foreign Countries, &c. (The unit 000's are omitted.)	First Nine Months.					
	1860.		1859.		1858.	
	Imports from	Exports to	Imports from	Exports to	Imports from	Exports to
I.—FOREIGN COUNTRIES:	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	13,505,	3,964,	11,703,	4,712,	8,861,	3,377,
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	17,977,	16,206,	14,436,	13,537,	12,747,	14,838,
Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	16,563,	7,814,	16,534,	6,684,	12,534,	7,148,
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	3,293,	4,696,	2,983,	4,039,	2,355,	4,910,
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	10,763,	5,927,	8,306,	5,071,	6,105,	5,215,
Northern Africa; viz., Tripoli, Tunis, Algeria and Morocco	162,	154,	196,	118,	188,	91,
Western Africa	1,143,	695,	871,	512,	1,089,	505,
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Moorla Islands	40,	81,	39,	263,	64,	45,
Indian Seas, Siam, Java, Sumatra, Philip- pines; other Islands	869,	1,391,	1,395,	2,310,	986,	1,787,
South Sea Islands	—	18,	—	40,	—	30,
China, including Hong Kong	6,803,	4,055,	6,556,	3,179,	5,542,	2,014,
United States of America	33,782,	16,235,	25,612,	17,426,	27,409,	10,189,
Mexico and Central America	451,	464,	398,	595,	258,	651,
Foreign West Indies and Hayti	2,836,	1,753,	2,587,	1,927,	2,926,	1,896,
South America, (Northern,) New Granada, Venezuela, and Ecuador	504,	926,	477,	797,	327,	629,
" (Pacific,) Peru, Bolivia, Chili, and Patagonia	3,577,	2,242,	2,624,	1,515,	5,021,	1,673,
" (Atlantic) Brazil, Uruguay, and Buenos Ayres	3,134,	5,101,	3,740,	4,082,	2,629,	3,932,
Whale Fisheries; Grnld., Davis' Straits, Southn. Whale Fishery, Falkland Islands...	92,	4,	80,	7,	153,	—
<i>Total.—Foreign Countries</i>	15,514,	71,726,	98,537,	66,814,	89,194,	58,930,
II.—BRITISH POSSESSIONS:						
British India, Ceylon, and Singapore	12,558,	14,897,	10,805,	13,999,	10,687,	12,787,
Austral. Cols.—New South Wales and Victoria	4,086,	5,945,	3,643,	6,329,	3,218,	5,948,
" " So. Aus., W. Aus., Tasm., and N. Zea.	1,645,	1,418,	1,414,	1,320,	1,096,	1,672,
British North America	4,124,	3,441,	3,502,	3,384,	2,663,	2,971,
" W. Indies with Btsh. Guiana & Honduras	5,060,	1,748,	4,581,	1,572,	5,325,	1,674,
Cape and Natal	1,174,	1,450,	1,065,	1,392,	1,000,	1,275,
Brit. W. Co. of Af., Ascension and St. Helena	112,	244,	149,	329,	177,	207,
Mauritius	1,272,	365,	1,365,	431,	1,113,	460,
Channel Islands	515,	495,	334,	467,	323,	387,
<i>Total.—British Possessions</i>	30,546,	29,998,	26,858,	31,223,	25,602,	27,381,
<i>General Total</i>£	146,060,	101,724,	125,395,	98,037,	114,796,	86,311,

IMPORTS.—(United Kingdom.)—First Eleven Months (January—November) 1860-59-8-7-6.—*Computed Real Value (as-duty), at Port of Entry (and therefore including Freight and Importer's Profit) of Articles of Foreign and Colonial, Merchandise Imported into United Kingdom.*

(First Eleven Months.) (000's omitted.) FOREIGN ARTICLES IMPORTED.		1860.	1859.	1858.	1857.	1856.
		£	£	£	£	£
RAW MATLS.— <i>Textile.</i>	Cotton Wool	31,567,	28,762,	26,346,	26,733,	23,948,
	Wool (Sheep's)..	9,727,	8,791,	7,717,	8,653,	7,625,
	Silk	7,881,	8,904,	5,488,	12,168,	7,097,
	Flax	3,377,	3,463,	2,708,	3,363,	3,223,
	Hemp	1,509,	2,205,	1,520,	1,763,	1,696,
	Indigo	2,403,	1,888,	2,167,	2,030,	2,273,
		56,464,	54,013,	45,946,	54,710,	45,867,
" " <i>Various.</i>	Hides	2,801,	2,795,	2,005,	3,796,	2,271,
	Oils	3,334,	2,846,	2,979,	3,306,	3,337,
	Metals	3,442,	3,221,	3,191,	3,496,	3,207,
	Tallow	2,815,	2,547,	2,240,	2,713,	2,477,
	Timber.....	8,366,	7,002,	4,638,	6,469,	7,029,
		20,758,	18,411,	15,053,	19,960,	18,321,
" " <i>Agriculi.</i>	Guano	1,183,	720,	3,634,	2,217,	1,932,
	Seeds	2,697,	2,570,	2,005,	2,494,	2,554,
		3,880,	3,290,	5,639,	4,711,	4,486,
TROPICAL, & C., PRODUCE.	Tea	5,932,	4,510,	4,599,	4,800,	4,431,
	Coffee	2,175,	1,788,	1,505,	1,553,	1,370,
	Sugar & Molasses	11,722,	11,322,	11,868,	14,790,	10,568,
	Tobacco	984,	1,068,	1,522,	1,651,	1,403,
	Rice.....	778,	658,	1,475,	1,619,	1,625,
	Fruits	954,	950,	569,	1,030,	937,
	Wine	3,883,	2,320,	1,803,	3,584,	3,148,
	Spirits	1,769,	1,993,	1,059,	2,597,	1,827,
		28,197,	24,609,	24,400,	31,124,	25,309,
FOOD	Grain and Meal..	27,320,	16,558,	18,714,	17,228,	20,525,
	Provisions	5,036,	2,986,	2,880,	3,770,	4,291,
		32,356,	19,544,	21,594,	20,998,	24,816,
Remainder of Enumerated Articles		3,232,	2,966,	2,586,	3,547,	2,931,
TOTAL ENUMERATED IMPORTS....		144,887,	122,833,	115,218,	135,050,	121,730,
Add for UNENUMERATED IMPORTS (say)		36,222,	30,708,	28,804,	33,762,	30,432
TOTAL IMPORTS.....		181,109,	153,541,	144,022,	168,812,	152,162,

EXPORTS.—(United Kingdom.)—Whole Years, 1860-59-8-7-6.—Declared Real Value at Port of Shipment of Articles of British and Indian Produce and Manufactures Exported from United Kingdom.

BRITISH PRODUCE, &c., EXPORTED. (Year) Unit 000's omitted.		1860.	1859.	1858.	1857.	1856.
		£	£	£	£	£
MANUFAS.—Textile.	Cotton Manufactures.	42,138,	38,743,	33,402,	30,373,	30,204,
	„ Yarn	9,875,	9,466,	9,753,	8,701,	8,029,
	Woolen Manufactures	12,164,	12,833,	9,778,	10,703,	9,500,
	„ Yarn	3,844,	3,080,	2,954,	2,942,	2,890,
	Silk Manufactures	2,106,	2,145,	1,868,	2,573,	2,666,
	„ Yarn	295,	207,	229,	317,	296,
	Linon Manufactures	4,802,	4,607,	4,124,	4,517,	4,888,
	„ Yarn	1,801,	1,685,	1,739,	1,648,	1,366,
		77,025,	71,966,	63,667,	61,774,	59,839,
	„ Sewed.					
	Apparel	2,157,	2,191,	1,844,	2,159,	1,816,
	Haberd. and Milary.	4,011,	4,289,	3,474,	3,894,	3,638,
		6,168,	6,480,	5,418,	6,053,	5,454,
METALS	Hardware	3,772,	3,826,	3,280,	4,016,	3,748,
	Machinery	3,825,	3,701,	3,604,	3,884,	2,716,
	Iron	12,158,	12,327,	11,236,	13,406,	12,966,
	Copper and Brass	3,002,	2,600,	2,854,	3,124,	2,648,
	Lead and Tin	2,562,	2,552,	2,238,	2,516,	2,381,
	Coals and Calm	3,322,	3,266,	3,053,	3,211,	2,827,
		28,641,	28,272,	26,265,	30,157,	27,286,
Ceramic Manufs.	Earthenware and Glass	2,094,	1,921,	1,721,	2,151,	1,916,
Indigenous Muffs.	Beer and Ale	1,864,	2,116,	1,852,	1,592,	1,455,
	Butter	633,	717,	541,	562,	694,
	Cheese	119,	138,	91,	114,	160,
	Candles	239,	188,	157,	280,	305,
	Salt	358,	254,	288,	337,	401,
	Spirits	287,	306,	207,	752,	998,
	Soda	963,	1,024,	813,	761,	608,
		4,463,	4,743,	3,949,	4,398,	4,621,
Various Manufs.	Books, Printed	495,	478,	390,	422,	425,
	Furniture	222,	242,	258,	289,	208,
	Leather Manufactures	2,129,	1,998,	2,011,	2,289,	1,756,
	Soap	250,	226,	210,	240,	276,
	Plate and Watches ...	564,	495,	454,	545,	481,
	Stationery	750,	840,	804,	742,	720,
		4,410,	4,279,	4,127,	4,527,	3,866,
	Remainder of Enumerated Articles	3,966,	3,366,	3,524,	3,806,	4,465,
	Unenumerated Articles	9,076,	9,413,	7,943,	9,200,	8,377,
	TOTAL EXPORTS	135,843,	130,440,	116,614,	122,066,	115,824,

SHIPPING. — FOREIGN TRADE. — (United Kingdom.) — Years, 1860-59-8-7. —
Vessels Entered and Cleared with Cargoes, including repeated Voyages, but
excluding Government Transports.

(Year.) ENTERED:—	1860.			1859.		1858.		1857.	
	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)
<i>Vessels belonging to—</i>	No.	Tons.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Russia	435	126,	290	346	103,	233	70,	169	43,
Sweden	1,119	182,	162	912	151,	720	120,	549	98,
Norway	2,862	638,	220	2,564	578,	2,187	483,	2,080	450,
Denmark	2,957	292,	100	2,771	277,	2,400	238,	2,511	244,
Prussia and Ger. Sts.	4,067	863,	210	3,603	799,	3,173	715,	3,428	664,
Holland and Belgium	1,758	239,	136	1,622	225,	1,398	211,	1,485	243,
France	2,187	186,	85	2,334	192,	2,716	234,	1,122	90,
Spain and Portugal	391	101,	253	399	94,	379	79,	399	86,
Italy & other Eupn. Sts.	1,057	299,	280	699	197,	837	640,	577	169,
United States	1,417	1,361,	960	1,115	1,078,	1,276	1,187	1,250	1,214,
All other States	20	6,	300	24	7,	17	6,	32	13,
United Kingdm. & } Depds.	18,270	4,293,	235	16,389	3,701,	15,335	3,583,	13,602	3,314,
	20,104	5,762,	286	19,909	5,389,	19,256	5,233,	19,091	5,418,
<i>Totals Entered</i>	38,374	10,055,	260	36,298	9,090,	34,591	8,816,	32,693	8,732,
 CLEARED:—									
Russia	396	117,	295	366	109,	242	72,	178	44,
Sweden	1,163	185,	159	946	158,	798	139,	714	135,
Norway	1,746	311,	179	1,782	343,	1,379	262,	1,696	330,
Denmark	3,362	328,	97	3,161	313,	2,999	302,	3,141	317,
Prussia and Ger. Sts.	5,033	936,	186	5,117	971,	4,832	872,	4,776	827,
Holland and Belgium	2,018	319,	158	2,024	305,	2,070	337,	2,134	388,
France	4,068	431,	106	3,612	394,	4,294	456,	4,410	474,
Spain and Portugal	364	92,	253	377	93,	399	89,	424	96,
Italy & other Eupn. Sts.	1,152	332,	290	837	233,	1,040	297,	739	222,
United States	1,456	1,368,	939	1,158	1,091,	1,308	1,229,	1,334	1,296,
All other States	19	6,	316	26	8,	18	6,	21	8,
United Kingdm. & } Depds.	20,777	4,425,	213	19,406	4,018,	19,379	4,061,	19,567	4,137,
	23,713	6,359,	270	23,701	6,224,	23,455	5,875,	24,834	6,204,
<i>Totals Cleared</i>	44,490	10,784,	242	43,107	10,242,	42,834	9,936,	44,401	10,341,

GOLD AND SILVER BULLION AND SPECIE. — IMPORTED AND EXPORTED. — (United Kingdom.) — *Computed Real Value for the Whole Years, 1860-63-8.*

(000's at unit end omitted)

(Whole Year.)	1860.		1859.		1858.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
Imported from:—	£	£	£	£	£	£
Australia	6,719,	1,	8,623,	3,	9,065,	1,
So. Amca. and W. Indies	1,180,	525,	1,739,	3,385,	3,848,	2,987,
United States and Cal.	3,918,	875,	7,909,	1,794,	4,502,	309,
	11,817,	5,401,	18,273,	5,152,	17,415,	3,297,
France	341,	3,698,	936,	6,366,	654,	2,979,
Hanse Towns, Holl. & Belg.	60,	966,	379,	2,972,	1,623,	743,
Portg., Spain, and Gbrltr.	14,	272,	90,	272,	172,	433,
Mex., Trky., and Egypt	36,	19,	318,	15,	1,282,	14,
China	—	—	—	3,	35,	86,
West Coast of Africa	91,	10,	97,	4,	111,	3,
All other Countries....	226,	27,	2,205,	33,	1,501,	45,
Totals Imported	12,585,	10,393,	22,298,	14,772,	22,793,	6,700,
Exported to:—						
France	10,401,	915,	14,902,	482,	10,530,	391,
Hanse Towns, Holl. & Belg.	151,	593,	929,	955,	315,	1,254,
Portg., Spain, and Gbrltr.	1,357,	1,	739,	—	187,	—
	11,909,	1,509,	16,570,	1,437,	11,032,	1,645,
Ind. and China (via Egypt)	1,302,	8,124,	613,	16,004,	131,	5,089,
Danish West Indies....	21,	29,	137,	6,	132,	73,
United States	1,724,	3,	10,	4,	135,	67,
South Africa	51,	—	5,	5,	64,	3,
Mauritius	—	—	—	1,	107,	26,
Brazil	357,	167,	98,	99,	289,	126,
All other Countries....	278,	61,	648,	51,	675,	34,
Totals Exported	15,642,	9,893,	18,081,	17,607,	12,565,	7,063,
Excess of Imports	—	500,	4,217,	—	10,228,	—
„ Exports	3,057,	—	—	2,835,	—	363,

REVENUE.—(UNITED KINGDOM.)—31st Dec., 1860-59-8-7.

Net Produce in YEARS and QUARTERS ended 31st Dec., 1860-59-8-7.

[Unit 000's omitted.]

QUARTERS, ended 31st Dec.	1860.	1859.	1860.		Corresponding Quarters.	
			Less.	More.	1858.	1857.
	£ Mins.	£ Mins.	£ Mins.	£ Mins.	£ Mins.	£ Mins.
Customs	5,861,	6,225,	364,	—	6,209,	5,590,
Excise	4,359,	5,360,	1,001,	—	5,004,	4,769,
Stamps	2,036,	2,018,	—	18,	2,029,	1,761,
Taxes	1,293,	1,424,	131,	—	1,383,	1,361,
Post Office	880,	830,	—	50,	860,	810,
	14,429,	15,857,	1,496,	68,	15,485,	14,291,
Property Tax	3,530,	938,	—	2,592,	547,	808,
	17,959,	16,795,	1,496,	2,660,	16,032,	15,099,
Crown Lands	83,	83,	—	—	83,	82,
Miscellaneous	228,	235,	6,	—	918,	726,
Totals	18,270,	17,113,	1,502,	2,660,	17,033,	15,907,
			Net Incr. £1,167,518			

YEARS, ended 31st Dec.	1860.	1859.	1860.		Corresponding Years.	
			Less.	More.	1858.	1857.
	£ Mins.	£ Mins.	£ Mins.	£ Mins.	£ Mins.	£ Mins.
Customs	23,032,	24,825,	1,792,	—	24,092,	22,464,
Excise	19,069,	19,041,	—	28,	17,966,	17,472,
Stamps	8,285,	7,977,	—	308,	7,996,	7,269,
Taxes	3,126,	8,231,	105,	—	3,158,	3,104,
Post Office	3,420,	3,225,	—	195,	3,075,	2,992,
	56,932,	58,299,	1,897,	531,	56,287,	53,301,
Property Tax	12,902,	6,077,	—	6,825,	7,591,	15,138,
	69,834,	64,376,	1,897,	7,356,	63,878,	68,439,
Crown Lands	290,	282,	—	7,	278,	274,
Miscellaneous	1,843,	1,413,	—	431,	2,131,	1,677,
Totals	71,967,	66,071,	1,897,	7,794,	66,287,	70,390,
			Net Incr. £5,897,038			

**REVENUE (UNITED KINGDOM).—QUARTER ENDED 31st DEC., 1860:—
APPLICATION.**

An Account showing the REVENUE and other RECEIPTS of the QUARTER ended 31st Dec., 1860; the APPLICATION of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.

Received:—

Surplus Balance beyond the Charge of the Consolidated Fund for the Quarter ended 30th September, 1860, viz.:—		£
Great Britain	—	
Ireland	£306,900	
		206,900
Income received in the Quarter ended 31st December, 1860, as shown on preceding page		18,970,348
Amount raised by issue of Exchequer Bonds (in part of a grant of £2,000,000)		1,000,000
Amount received in the Quarter ended 31st December, 1860, in repayment of Advances for Public Works, &c.		351,716
		£19,827,964
Balance, being the deficiency on 31st December, 1860, upon the charge of the Consolidated Fund in Great Britain, to meet the Dividends, and other charges, payable in the Quarter to 31st March, 1861, and for which Exchequer-bills (Deficiency) will be issued in that Quarter		9,709,616
		£22,537,480

Paid:—

Net Amount applied out of the Income for the Quarter ended 31st December, 1860, in redemption of Exchequer-bills (Deficiency), for the Quarter ended 30th September, 1860, viz.:—		£
Total Deficiency	£2,072,016	
Deduct, Redeemed by Sinking Fund	298,000	
		2,844,016
Amount applied out of the Income to Supply Services in the Quarter ended 31st December, 1860		11,409,630
Charge of the Consolidated Fund for the Quarter ended 31st December, 1860, viz.:—		
Interest of the Permanent Debt	£6,836,055	
Terminable Debt	355,818	
Interest on Exchequer Bills (deficiency)	1,388	
The Civil List	101,846	
Other Charges on Consolidated Fund	418,753	
Advances for Public Works, &c.	149,613	
		7,861,423
Surplus Balance in Ireland beyond the Charge of the Consolidated Fund in Ireland for the Quarter ended 31st December, 1860, viz.:		922,511
		£22,537,480

CORN.—*Gazette Average Prices (ENGLAND AND WALES) Fourth Quarter of 1860.*

[This Table is communicated by H. F. JADIS, Esq., Comptroller of Corn Returns.]

Weeks ended on a Saturday, 1860.	Weekly Average. (Per Impl. Quarter.)					
	Wheat.	Barley.	Oats.	Rye.	Beans.	Pears.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
October 6	58 8	39 8	25 1	39 1	48 11	39 10
" 13	61 1	39 11	24 8	37 3	50 11	42 8
" 20	60 6	40 7	23 7	34 7	50 2	41 11
" 27	59 11	40 9	23 5	36 8	49 6	41 10
<i>Average for October</i>	59 11	40 2	23 11	36 10	49 10	41 6
November 8	59 9	40 10	23 8	36 2	49 10	42 4
" 10	58 9	41 -	23 11	36 6	51 1	44 2
" 17	58 1	41 4	23 5	36 4	50 8	46 9
" 24	56 8	40 11	23 3	34 4	48 11	48 4
<i>Average for November</i>	58 2	41 -	23 5	35 10	50 1	45 4
December 1	54 10	39 10	22 8	35 11	48 10	45 11
" 8	52 7	39 2	22 5	35 -	47 9	45 -
" 16	51 5	38 7	22 1	33 6	45 6	43 8
" 22	52 6	38 6	21 8	35 2	45 2	43 10
" 29	54 -	39 7	22 6	34 7	44 10	46 7
<i>Average for December</i> ...	53 -	39 1	22 3	34 10	46 5	45 -
<i>Average for the Quarter</i> ..	56 9	40 -	23 2	36 9	48 7	40 -
<i>Average for the Year</i>	58 8	36 7	24 5	36 3	44 8	40 6

RAILWAYS.—PRICES, Oct.—Dec.,—and TRAFFIC Oct.—Dec., 1860.

Total Capital Ex- pended Mins.	Railway.	For the (£100).			Miles Open.		Total Traffic whole 52 Weeks.		Traffic pr. Mile pr. Wk. 52 Weeks.		Dividends per Cent. for Half Year.		
		Price on					unit 100's omitted.						
		1 Dec.	1 Nov.	1 Oct.	'60.	'59.	'60.	'59.	'60.	'59.	30 Jn. '60.	30 Dec. '59.	30 Jn. '59.
£					No.	No.	£	£	£	£	s. d.	s. d.	s. d.
40,7	Lond. & N. Westn.	100½	100½	100½	950	943	4,168,	3,923,	84	80	50 -	52 6	42 6
23,3	Great Western	73½	72	74½	470	466	1,695,	1,622,	69	67	30 -	35 -	20 -
12,1	Great Northern	110½	114	116	283	283	1,326,	1,272,	90	86	45 -	70 -	33 5
16,6	Eastern Counties.	51½	52	53	499	499	1,327,	1,306,	51	50	21 3	30 9	19 1
9,4	Brighton	115	114	110½	224	223	878,	825,	75	71	50 -	70 -	50 -
13,5	South-Eastern	85½	84½	83½	306	306	1,112,	1,064,	70	66	46 8	60 -	40 -
10,3	South-Western	94½	94½	92	388	339	951,	872,	47	49	42 6	52 6	42 6
126,9		90½	90½	90	3,220	3,059	11,457,	10,884,	69	67	40 9	53 11	35 5
20,9	Midland	134½	133½	129	614	614	2,065,	1,855,	64	58	65 -	60 -	42 6
18,6	Lancsh. and York.	120	117½	115	395	395	1,933,	1,733,	94	84	55 -	50 -	45 -
9,0	Sheffield and Man.	48½	46½	47½	173	173	603,	550,	67	61	10 -	10 -	4 -
23,0	North-Eastern	103½	102½	102	764	764	1,994,	1,865,	50	44	52 6	41 8	30 10
4,5	South Wales	66	67½	64	171	171	374,	354,	42	40	20 -	27 6	22 6
76,0		94½	93½	91½	2,117	2,117	6,969,	6,357,	63	57	40 6	37 10	28 11
8,7	Caledonian	95	91½	91½	219	219	784,	733,	69	64	45 -	50 -	37 6
5,1	Gt. S. & Wn. Irind.	114	114	112	329	249	417,	366,	24	28	50 -	50 -	50 -
216,2	<i>Gen. aver.</i>	94	93	92	5,885	5,544	19,627,	18,340,	64	60½	41 7½	47 2	34 3

Consols.—Money Prices 1st Dec., 92½ to ½,—1st Nov., 92½ to 3,—1st Oct., 93 to ½.

Exchequer Bills. " 1s. to 4s. dis. " 3s. dis. to par, " par to 3s. pm.

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), for Wednesday in each Week, during the FOURTH QUARTER (Oct.—Dec.) of 1860.

ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
1	2	3	4	5	6	7
Liabilities.	DATES.	Assets.			Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.
		Government Debt.	Other Securities.	Gold Coin and Bullion.		
Notes Issued.	(Wednesdays)					
Mins. £	1860.	Mins. £	Mins. £	Mins. £	Mins. £	1860. Per ann.
29,64	Oct. 3	11,02	3,46	15,17	21,95	24 May, 4 p.ct.
29,16	" 10	11,02	3,46	14,69	21,35	
28,29	" 17	11,02	3,46	13,81	21,79	
28,17	" 24	11,02	3,46	13,69	21,45	8 Nov. 4½ "
27,86	" 31	11,02	3,46	13,88	21,50	
27,64	Nov. 7	11,02	3,46	13,16	21,21	13 " 5 "
27,00	" 14	11,02	3,46	12,52	20,66	15 " 6 "
27,01	" 21	11,02	3,46	12,54	20,40	
27,54	" 28	11,02	3,46	13,06	19,90	29 " 5 "
27,41	Dec. 5	11,02	3,46	12,93	20,21	31 Dec. 6 "
27,12	" 12	11,02	3,46	12,64	19,92	
27,04	" 19	11,02	3,46	12,57	19,69	1861.
26,57	" 26	11,02	3,46	12,19	19,65	7 Jan. 7 "

BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18	
Liabilities.					DATES.	Assets.					Totals of Liabilities and Assets.
Capital and Rest.		Deposits.		Seven Day and other Bills.		Securities.		Reserve.			
Capital.	Rest.	Public.	Private.			Government.	Other.	Notes.	Gold and Silver Coin.		
Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	(Wdnedaya.)	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	
14,55	3,80	6,84	12,01	,80	1860. Oct. 3	9,66	19,94	7,69	,70	38,00	
14,55	3,08	6,58	12,81	,76	" 10	9,66	19,58	7,81	,74	37,79	
14,55	3,12	3,25	14,34	,79	" 17	9,49	19,29	6,50	,77	36,06	
14,55	3,13	3,41	14,79	,79	" 24	9,49	19,72	6,72	,74	36,68	
14,55	3,14	4,16	13,74	,76	" 31	9,49	19,76	6,36	,74	36,35	
14,55	3,17	4,97	13,11	,82	Nov. 7	9,49	19,97	6,43	,74	36,62	
14,55	3,19	5,80	12,60	,78	" 14	9,49	20,31	6,34	,80	36,93	
14,55	3,21	6,07	12,66	,73	" 21	9,49	20,30	6,61	,82	37,22	
14,55	3,17	6,52	13,37	,72	" 28	9,49	20,39	7,64	,80	38,32	
14,55	3,17	6,62	12,47	,72	Dec. 5	9,49	20,10	7,20	,74	37,53	
14,55	3,18	7,03	12,10	,66	" 12	9,54	19,99	7,20	,80	37,53	
14,55	3,18	7,38	11,76	,65	" 19	9,54	19,89	7,35	,76	37,53	
14,55	3,19	7,36	11,97	,61	" 26	9,54	20,52	6,92	,70	37,69	

CIRCULATION.—COUNTRY BANKS.

Average amount of Promissory Notes in Circulation in ENGLAND and WALES, on Saturday, in each Week during the FOURTH QUARTER (Oct.—Dec.) of 1860; and in SCOTLAND and IRELAND, at the Three Dates, as under.

ENGLAND AND WALES.				SCOTLAND.				IRELAND.			
DATE.	Private Banks. (Fixed Issues, 4-40)	Joint Stock Banks. (Fixed Issues, 3-34.)	TOTAL. (Fixed Issues, 7-70.)	Four Weeks, ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 9-75.)	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 6-34.)	
	Mina. £	Mina. £	Mina. £	1860.	Mina. £	Mina. £	Mina. £	Mina. £	Mina. £	Mina. £	
1860.											
Oct. 6	3,53	3,09	6,62	Oct. 20	1,60	2,68	4,28	3,45	3,45	6,70	
" 13	3,60	3,10	6,70								
" 20	3,59	3,08	6,67								
" 27	3,56	3,05	6,61								
Nov. 3	3,63	3,04	6,57	Nov. 17	1,71	2,87	4,58	3,59	3,56	7,15	
" 10	3,48	3,06	6,54								
" 17	3,44	3,04	6,48								
" 24	3,41	3,02	6,43								
Dec. 1	3,56	2,99	6,35	Dec. 15	1,73	2,96	4,69	3,43	3,61	7,04	
" 8	3,31	2,95	6,26								
" 15	3,28	2,93	6,21								
" 22	3,26	2,92	6,18								
" 29	3,27	2,90	6,17								

FOREIGN EXCHANGES.—*Quotations as under, London on Paris, Hamburg & Calcutta;—and New York, Calcutta, Hong Kong & Sydney, on LONDON—with collateral cols.*

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Date.	Paris.			Prem. or Dis. on Gold per mille.	Hamburg.			New York.	Calcutta.		Hong Kong.	Sydney.	Standard Silver in bars in London.
	London on Paris.	Bullion as arbitrated.			London on Hambg.	Bullion as arbitrated.			India House.	At Calcutta on London.			
		Agst. Engd.	For Engd.			Agst. Engd.	For Engd.						
3 m. d.	Agst. Engd.	For Engd.	3 m. d.	Agst. Engd.	For Engd.	60 d. s.	60 d. s.	6 m. s.	30 d. s.	pr. oz.			
1860.		pr. ct.	pr. ct.		pr. ct.	pr. ct.	pr. ct.	d.	d.	d.	pr. ct.	d.	
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QUARTERLY JOURNAL

OF THE

STATISTICAL SOCIETY.

SEPTEMBER, 1861.

*On the ORIGIN and Numerical DEVELOPMENT of SERFDOM in the
RUSSIAN EMPIRE. By M. ARTHUR DE BUSCHEN, of the
Central Commission of Statistics in the Ministry of the Interior,
St. Petersburg.**

[Read before the Statistical Society, by Mr. J. T. Hammack, 23rd April, 1861.]

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THE project for the complete emancipation of the serfs which has recently attracted the attention of the civilized world, was taken in hand two years ago. That project has become a fact, and the serf population in Russia is now free. Despotism had enslaved the race,

* M. de Buschen, one of the Reporters of the Central Commission of Statistics at St. Petersburg, charged by the Russian Government with the mission of visiting the different States of Europe for the purpose of studying the practical details connected with the organization of their official statistics, having been in England (accompanied by M. Wilson), in order to observe the method of taking the recent census in this country, presented to the Statistical Society this Paper on Serfdom in Russia,—a subject of peculiar interest at the present time. It is proper to observe, that the paper was written by M. de Buschen in German, and that an excellent translation of it was prepared under difficult circumstances, and on a very short notice, by Mr. Clarkson Bradley, second assistant in the office of the Statistical Society; this translation, for which the thanks of M. de Buschen and the Society were publicly given to Mr. Bradley, Mr. Hammack has revised and condensed for publication.—ED. S. J.

and existed in every pore of the organism of the State, stifling every effort at improvement. By the most resolute determination alone could serfdom be overcome, and rooted out. The Emperor Alexander has displayed greater strength of will than any of his predecessors, who had always yielded to difficulties, and from these first steps will date the political development of Russia. Important reforms in most of the departments of the administration are already in progress, and are being pushed forward with vigour.

Russia occupies the same position that she did at the close of the sixteenth century. Notwithstanding private and official splendour, three hundred years have changed her but little, and have only separated her from progressive Europe. Free labour can alone civilize and enrich a nation, but the Russian peasant has remained up to this time poor and uncivilized.

In the consideration of the gradual rise of serfdom, from the commencement of which date the endless distinctions of rank existing among the whole population, it will be convenient to arrange our remarks under a few heads referring to the more strongly marked periods in its history.

I.—*The Origin of Serfdom in Russia in the Seventeenth Century.*

From the time of the foundation of the Roman Empire until the sixteenth century, every native of Russia was a freeman, whether he dwelt on his own property, or on that of another.

In this respect the Muscovite nation was much in advance of Western Europe, and the people owed their position of personal freedom to its legitimate development. As was the case with nearly all the countries of Western and Central Europe, Russia was founded as a distinct state by foreigners. She owed her primary organization to invasion, but the fact stands almost alone in history, that the invasion was a peaceable one. When the Goths, Lombards, Franks, Northmen, and Saxons overran the old world with the sword, the inhabitants of the great Roman Empire were compelled to cultivate their former possessions for the victors. Then it was that the Northmen made their way into Russia, and received a welcome from the inhabitants. "Our country," said the envoys from Novgorod, "is large and fruitful, but there is no order amongst us; come and be our rulers." This is recorded in the most ancient chronicle of Russia. The Scandinavians thus invited, settled in the land and established monarchy in place of the earlier republics.

No change occurred in the position of the people in connexion with the land, and the agricultural population continued free. It is a common error to suppose that serfdom existed in Russia during the middle ages. This error has arisen from the misinterpretation of historical records. During the middle ages the peasantry were

entirely free; they paid taxes for different purposes, and in many cases rent on land. It is true, that of slaves, in the strict sense of the word, there were a few, but these were for the most part prisoners taken in war, who were delivered over by law to the victors as their personal property. Later, it was lawful to make over insolvent debtors to their creditors as personal property.

No doubt the peasants were seldom freeholders; by far the greater number were tenants cultivating the lands of the great proprietors, or of the monasteries and other institutions. The peasant rendered payment to the State, to the church, or to his lord, according to agreement, always possessing the right to quit the estate at pleasure, and settle elsewhere. Owing to the economic effects resulting from this unshackled right of movement, certain restrictions were imposed in order to secure the cultivation of the land. The peasants were allowed to leave the estate only at stated periods, and their engagements usually terminated on St. George's Day (26th November), after the ingathering of the harvest. This from being at first only a custom, subsequently was made law. The object was to remove, as far as possible, uncertainty in the cultivation of the soil, and consequently in the revenues of the proprietors. This was also of great importance with respect to the crown lands, upon the rents of which partly depended the revenue of the State. Here we have the principal reason which induced the government to limit to this extent the freedom of the peasant, and the first steps taken to attach him to the soil. An edict issued in 1597, compelled him to remain on the land on which he was then dwelling. It was some time, however, ere this measure was fully carried out, only on the accession of the new dynasty of Romanoff, in the year 1613, could it be accomplished, and this important restriction in the liberty of the labouring population be everywhere introduced.

But this law, confirmed by the adhesion of the nobles, the clergy, and those who had special interests in the new organization, although attaching the peasant to the soil, did not deprive him otherwise of his liberty. Even after this decree we are unable to discover anything approaching to the condition of absolute slavery among the peasants, or the bondage of any class amongst them. But the foundations of serfdom as a modern institution were securely laid. The last relics of the early form of slavery disappeared, and the slaves who had been private property were everywhere placed on an equality with the rest.

II.—*Legalization of Serfdom by Peter the Great.*

As the earlier differences in the position of the peasants with regard to taxation remained, a distinction began to be recognised in the rights of those who had settled on different lands and

estates. The peasants who dwelt on the crown lands, denominated crown peasants, formed the largest class; and although nominally free, they became more and more dependent on the government.* The peasants assigned to the monasteries and for the support of the clergy were also distinct, those possessed by the clergy being in total dependence on the church.† Distinct from the general mass, were also those who were held by a species of feudal tenure. Certain inferior nobles held their estates under the obligation of supplying troops, with whom they were bound personally to serve. The vassalage of the peasants continued only so long as the noble fulfilled his obligation to hold himself at the service of the Czar, with horse, weapons, and retainers. The peasants of this class, although greatly dependent on the will of the feudal lord, were allowed to hold land directly from the State. Abuses, however, gradually crept in. The nobles began to exchange their lands with the peasants dwelling thereon, subsequently the sale of servants without land became common, although strictly forbidden by law.

The legal sanction of the power of the lords took place in the latter years of the reign of Peter the Great. The reforms effected by this sovereign in his dominions, and the efforts he made to render Russia a completely organized European State are well known. These reforms, however, especially the establishment of a standing army, demanded large pecuniary resources, and a consequent reconstruction of the financial department of the Empire. The owners of estates, with the abolition of their early feudal obligations, were compelled by law to serve the State either in a civil or a military capacity. On these conditions alone could the nobles enjoy the privileges of their position; they were obliged to guarantee to the State certain taxes and imposts on their property, that is, they were made responsible for the levying of recruits and for the exaction of a poll tax from the people on their estates. In order to determine the amount of this tax, Peter instituted the first census of the population,‡ the payment of each proprietor not being reckoned according to the extent or produce of his property, *but according to the number of souls settled thereon*. The year 1718 commenced, and

* Some of these had special services to perform, like the postmen who lived in particular villages on the great military roads, and in lieu of paying taxes and being subject to conscription, performed the duty of delivering letters. The castle peasants, appointed for the keeping up of the imperial castles, and the peasants whose duty it was to furnish the depôts with salt from the lakes of Astracan, afford other examples.

† The number of these was very important; they were incorporated with the general mass of crown peasants, under Peter the Great, a yearly rent being paid to the church.

‡ Since this first census nine others have been taken at irregular periods; and, like the first, they have been chiefly limited to inquiries respecting the persons liable to taxation and to military duty.

the year 1722 completed this measure, and at the same time established the right of the noble to the person of his tenant. The peasant fell into complete personal bondage.

The right to levy recruits and to fix the amount of taxation were enforced without regard to the changes in the number or the occupations of the people; the law gave the lords the power of holding the tenants absolutely at their command. The sale of the serf with or without the land was permitted. Few rights were reserved to him, but he was still allowed in some cases to acquire property in land, and he might enter the military service at will. When sold he was not to be separated from his family. Yet even these restricted privileges were often infringed.

We find then at the close of the reign of Peter the Great three different classes of peasants. The first, consisting of freemen with property in land, was numerically small. The second class, namely the crown peasants, including those connected with the estates of the monasteries and the church, had largely increased, forming two-thirds of the rural population of Russia. The third class, consisting of serfs cultivating the land of their lords, formed scarcely a third of the whole population.

III.—*The further Development of Serfdom to the Year 1801.*

During the century which followed the death of Peter the Great despotism gradually acquired a firmer hold, and the peasants sank deeper and deeper into bondage. In vain have writers and historians endeavoured to discover any measures of the Government evincing the slightest solicitude for the welfare of the great mass of the people. No gleams of light have penetrated through the moral darkness of the period. Of the eight sovereigns of Russia in the eighteenth century, after Peter the Great, three were emperors, viz., Peter II, who died when a child; Peter III, deposed after a reign of only six months; and Paul, who reigned four years; the rest were empresses, who allowed themselves to be ruled by their favourites, and indeed handed over the government of the country to each succeeding lover.*

Under Peter's successors the peasants soon lost their few remaining privileges. In the year 1729 they were forbidden to take military service of their own freewill. In 1730 an edict was issued recalling the permission to possess and inherit property in land. In 1736 followed a decree authorizing the sale of the serfs *without* the land. In the same year the right of punishing fugitive serfs, which until then belonged only to the State, was vested in the landlords.

* Three of these sovereigns, Anna Leopoldowna, Peter III, and Catherine II, were foreigners; the last only, in consequence of the length of her reign, became well acquainted with the country.

During the reign of Elizabeth, the daughter of Peter the Great, it was decreed, amongst other regulations on the subject of fugitive serfs, that if any one appropriated a strange serf, or took him as a recruit, the injured proprietor was authorized to take another man from the offender as a substitute. In this and other enactments the serf was regarded as a chattel capable of being replaced by another of the same kind. In 1760 a new edict appeared, which allowed the landlords to send all serfs with whom they were dissatisfied, or who bore their yoke discontentedly, to work in the mines of Nerchinsk, in Siberia, the State making the proprietors an equivalent allowance in fixing their quota of recruits. The wives were compelled to follow their husbands, but the children might be retained by their owners, in other words, the State colonized Siberia by purchasing slaves and separating families. Passing some minor enactments during the short reign of Peter III,* we proceed to notice some of the edicts of the Czarina Catherine II, the especial favourite with the nobles, to whom she owed her crown. Talking much of liberty, her solicitude for the welfare of the serfs was confined to repeated exhortation to their owners to treat them with mild and philosophic consideration, as though such flourishes could set aside positive law. The active measures of Catherine, however, inflicted the severest wounds on freedom, and completed the edifice of which the foundations had been laid by Peter the Great. While at home she enslaved Russia she warmly espoused the cause of the negro slave abroad. Owing her throne to the aristocracy and clergy, or rather to those to whom the German habits of Peter the third had become unbearable, she convened them at Moscow in 1767, to consider the existing laws and the best method of ameliorating the condition of the people. For the guidance of this assembly of notables she herself wrote instructions, drawing her inspiration from the philosophers of the eighteenth century, especially from Voltaire; historic facts, philosophic flourishes, and practical remarks alternate in strange succession; Lacedemon, Athens, Rome, and Peter the Great had to furnish precepts. Her remedies, derived from the books of Mosaic law, and from the history of the ancient and modern world, ill concealed her ignorance of the real position and the grievances of the age in which she ruled. The instructions referred to matters affecting the condition of the labouring population of the state, without, however, treading near the principles of serfdom.† The amendment of some personal grievances, such as the means of

* Peter seems to have been on the whole a well disposed sovereign; his chief fault lay in a disposition to act always according to German customs and ideas, which among the most influential classes in Russia found no response.

† In these instructions the character of Catherine completely reveals itself as it were in a mirror. A lofty spirit, great learning and powers of mind, combined

obtaining redress for cruel treatment of serfs, and concerning freedom of marriage, were discussed but not legally established. The assembly broke up after some grandiloquent orations, without doing anything beneficial to the serfs.

In 1783, Catherine extended serfdom as far as the country of the Cossacks of Ukraine, where it had hitherto been unknown.

In 1785, she published her memorable edict concerning the rights of the nobles with respect to their landed property. In order to secure the favour of the nobility, the rights of the serf population were entirely sacrificed. The aristocracy were granted freedom from State service, and exemption from all personal burdens and taxes; new political rights and privileges were granted them. Among the last was the right of sole and uncontrolled possession of the serfs. The peasant was reckoned as a chattel, and constituted hereditary and disposable property of his lord. All the earlier regulations remained, and were legally confirmed. From this edict dates the first recognition of serfdom in Russia as an institution authorized by law.

The presentation of crown property to private individuals in the time of Catherine was wasteful in the extreme. From the victorious general to the favourite lover every service was rewarded from this never-failing mine of wealth; hence date the estates of Menschikoff, Potemkin, and others. At the close of the eighteenth century the state of the peasant population stood thus—the free peasants dwelling on their own property had absolutely, but not relatively, increased, on account of those in newly acquired provinces, and especially the Crimea, being counted.* The free peasants of the crown lands, owing to their sale or presentation to private individuals, had considerably decreased. The peasants on the property of private proprietors had almost all become serfs, among them several millions of Cossacks of the Don, and Lithuanians, Volhynians, Podolians, &c. The serf system had been extended to not less than two-fifths of the whole population of the Empire, or to fifteen millions out of thirty-five millions of souls.

IV.—*Partial Amelioration of the Condition of the Serfs until the Abolition of Serfdom in the Year 1861.*

The reign of Paul, which occupied the last years of the eighteenth century, if bringing no change for the better, did not at any rate

with a total absence of practical knowledge and fitness for action. She remarks that morality alone sustains and increases the human family. We know well the example of morality she afforded to her court and people.

* In Lithuania, and especially in the provinces where the Poles had spread their dominions, serfdom was more widely spread than in Russia, although in a milder form.

aggravate the position of the serfs. We do not agree with many who ascribe to Paul an increase of 800,000 souls to the serfs. The separation of this number from the ordinary class of crown peasants, as gifts to the members of the imperial family and to the order of knights (1797) instituted no new bondage. The appanage-peasants thus created had a distinct form of government, and must on no account be regarded as ordinary serfs, since they rather resembled the crown peasants in their rights and duties. After the death of Paul earnest efforts were made by his successors, not only to procure better treatment of the serfs, but also to check the increase of serfdom. These efforts were weak indeed, but still produced some effect. The people perceived in them some signs of future liberty. The Russian legislature on this subject presented a multitude of enactments which cannot be analysed here. Suffice it to say that they contained the greatest contradictions. The old ordinances and laws were first rescinded, then restored with greater severity, and then again modified and lightened. On the whole we cannot deny that an inclination for the better prevailed, struggling against the fear of incurring the displeasure of the aristocracy and of exciting liberal ideas and innovations. It is a significant fact, that during the reigns of Alexander I and Nicholas eight commissions were appointed for the purpose of revising and ameliorating the position of the peasants. All these commissions were strictly secret, and led to no decided or vigorous results.

The principal proceedings more recently were these,—a new class of peasants, termed “free husbandmen,” was formed; the enactment of measures for the emancipation of the Baltic provinces, and the limitation of relations of property for preventing an arbitrary augmentation of burdens in the western provinces; the sale of serfs without land was disallowed; the gift of State peasants to private individuals (re-adopted since 1830 under Nicholas) was discontinued, the right of punishment by the lord was limited, and the separation of families prohibited.

The introduction of a class of free husbandmen dates from the year 1803. The landlords were allowed, according to the project of the great Rumianzoff, to free their peasants with a certain quantity of land. Experience should have taught the landlords to perceive the advantage of this course, and to follow it; yet at the present time this class of peasants numbers only 400,000 souls of both sexes.

More important in its results was the emancipation of the Baltic Provinces, which in the year 1804 commenced with an attempt to improve the condition of the serfs in Livonia, and in 1816 and subsequent years ended with their general liberation in all three provinces. The Livonian nobles, invited by the Government to set a good example to other parts of the empire, declared their tenants to

be personally free. A programme was formed for the organization of their mutual relations, and this first measure was afterwards fully carried out in the three provinces. From the present point of view, however, the emancipation of the Baltic Provinces would be regarded as incomplete. At that time it was one of the most important steps ever taken in Russia for the good of the serfs. It secured the personal freedom of the peasants, the right to possess and acquire property in land, and a free power of agreement with the landlords concerning the cultivation of the soil.

At the close of the reign of Alexander I, and at the commencement of that of Nicholas, there was an entire cessation in the prosecution of serf reform. The governing classes were in fear of democracy, then manifesting itself throughout Europe. Somewhat later, the government appears to have laid aside its mistrust and to be willing to forward the work of emancipation. The year 1842 saw introduced a new law recognizing the freedom of the peasant without land, subject to a fixed regulation for taxes and imposts. This new class of freemen, called "conditional peasants," or engaged labourers, numbers only 55,000 souls of both sexes.

The recently announced and all-important project of freeing the serfs has made an end of all further evils consequent upon their bondage. The next two years will mark the period of transition, and upon its termination every serf in Russia will become personally free. The regulations under which the servitude and burdens of the serf population are to be removed will then be fully established. The domestic serfs, that is to say, those without land, will be irrevocably free. The husbandmen obtain their personal liberty, and remain under control, in other respects, only so long as they have no land of their own. The quantity of land which was fixed upon for the usufruct only, and that which was assigned to the serf as part of his wages, will remain unaltered; his interest in the soil will be reserved to him for the payment of a rent or for the performance of personal labour on the property of the landlord. In eight years all payment by labour of this kind is to be discontinued, and payment in *money* is to be substituted. The peasants may buy land as their own free property, and the road to independence is thus opened to them. By the help of these arrangements the relations between landlord and tenant are clearly established.

Russia has greeted with joy these reforms, which have made Alexander the most popular sovereign of all his predecessors. His work is not the mere privilege of a class, as so many previous reforms have been; it is the impartial realization of the principles of truth and justice,—a sure foundation of the growth of a nationality, and of the material and intellectual advance of the empire.

V.—*Numerical Survey of Serfdom in the Russian Empire at the period of the Emancipation.*

We now proceed to present a statistical view of serfdom, at the period of the emancipation. The numbers are derived from the tenth census, taken at the end of the year 1858. The total population of Russia, exclusive of Poland, the Grand Duchy of Finland, and the Caucasus, consisted of 82,000,000. In the following provinces, containing 8,251,000 souls, the serf system had ceased to exist, viz.:—Erstland, Livonia, Kurland, and the country of the Cossacks of the Black Sea, Semipalatinsk, and of the Kirghis, Siberia. The provinces in which serfdom existed, contained a population of 59,000,000, of whom 48,000,000 or nearly four-fifths of the whole were cultivating land and presenting three distinct classes.

1. The freemen possessing land of their own, amounting to only 1,500,000.

2. The free peasants on land belonging to the State, numbering 28,800,000. This class consists of a great number of different denominations, with different rights; they pay "*obrok*" for cultivated land.

3. The serfs belonging to private proprietors, amounting to 22,568,086. They include 86 per cent., or about one-third of the whole population, and two-fifths of the rural population. In 1858, they were sub-divided as follows:—

(a.) Serfs attached to the land:—

Males, of all ages	9,798,938
Females „	10,359,293
Both sexes	<u>20,158,231</u>

(b.) Serfs not attached to the land, but held as the servants of the proprietors:—

Males	723,725
Females	743,653
Both sexes	<u>1,467,378</u>

(c.) Temporary serfs, held for stated periods:—

Males	173,476
Females	180,848
Both sexes	<u>354,324</u>

(d.) Serfs, the property of institutions, as corporations, churches, schools, hospitals, &c., generally legacies from private individuals:—

Males	19,350
Females	21,204
Both sexes	<u>40,554</u>

(c.) Serfs attached to manufactories and mines (mostly belonging to merchants):—

Males	259,455
Females	283,144
	<hr/>
Both sexes	542,599
	<hr/>

These five classes comprise a total of—

Males	10,974,944
Females	11,588,142
	<hr/>
Total of both sexes	22,563,086
	<hr/>

The proportion of the sexes is as 100 males to 105 females, whereas the *whole* population is as in the proportion of 100 males to 101 females. The females, therefore, according to the numbers returned, greatly predominate among the serf population, a phenomenon which is partly explained by the concealment of the true number of males (to a small extent it is true), in order to avoid the taxes. The annual levies of recruits, and the greater mortality of the male children born have also diminished the number of males.

The subjoined table (see p. 824) exhibits the distribution of serfs (including women and children) belonging to private proprietors in 1858 throughout the Russian Empire.

Column 2 gives the number of serfs attached to the land in the different governments and provinces.

Column 3 gives us the number of serfs bestowed on the nobles as servants. The largest number of this class will be observed in the Governments of Voronezh, Ekatherinoslaw, Koursk, Orel, Postawa, Riassan, Tamboff, Toula, Kherson, and Kharkoff. These provinces are for the most part thickly populated, and the number of small proprietors is very considerable.

Column 4 gives the number of temporary serfs, who after a fixed period became free. They are found only in a few governments, and are most numerous in the early Polish provinces. These are the serfs made personally free since 1846 by their landlords, yet the land made over to them, has had to bear taxes, &c., just as though their servitude had continued.

Column 5 gives the distribution of 40,000 serfs, the property of different institutions, such as schools, churches, hospitals, &c. These serfs, although not belonging to individuals, were subject to the directors and heads of the institutions, who exercised all the rights of landlords.

Column 6 gives the distribution of serfs engaged in manufactories and in the mines. They are most numerous where the proportion

of agricultural serfs is smallest as in Perm, Orenburg, Kaluga, and Tamboff. This class originated in the desire of Peter the Great, to encourage industry and the improvement of manufactures.

Column 7 exhibits the total number of serfs, and when compared with the general population in column 10, it affords some interesting results. In sixteen governments 50 per cent. and upwards of the population were in a state of serfdom. Among these are the following belonging to the earlier Polish provinces, viz., Smolensk 70 per cent., Mohileff 64 per cent., Witebsk 57 per cent., Minsk 60 per cent., Podolia 60 per cent., Volhynia 56 per cent., Kieff 58 per cent. Seven governments of Great Russia, forming the centre of the Muscovite Empire, give the following proportions:—Tula 68 per cent., Kaluga 61 per cent., Riäsan 56 per cent., Nijni-Novgorod 58 per cent., Vladimir 57 per cent., Kostroma 57 per cent., and Yaroseaw 57 per cent. Moscow is not counted with these governments, owing to the magnitude of her town population, which is almost entirely free. With the exception of the west, where the Polish rule spread serfdom, and enslaved nearly the whole population, the relative proportion of serfdom decreased according to the distance of the provinces from the centre formed by Moscow and the above-mentioned governments. The proportion of serfs was lowest in the following governments, viz., Tauria (Crimea) 5 per cent., Olonetz 4 per cent., Viatka, Astrakhan, Stawropol 2 per cent., and Bessarabia 1 per cent. The proportion in Siberia is smaller still. Serfdom had been introduced into all these provinces, mostly through the colonisation by peasants from Great Russia, but fortunately had never taken a firm hold.

Column 8 shows the number of proprietors of serfs, and by comparing this with the preceding column (7) we obtain column 9, in which the average number of serfs possessed by each owner is given. This proportion has exercised great influence on the relations of the serfs with their lords. As a rule those belonging to large estates have been better off both as regards their land and other circumstances than those on smaller properties. The table exhibits the districts in which a numerous and mostly poor aristocracy ruled. Unquestionably the richest districts were Perm (with 9,700 serfs as an average to each owner), Viatka (530), and the three lesser Russian Governments of Podolia (670), Kieff (721), and Volhynia (870). The average of the whole country was 211 serfs to each proprietor. Of the 107,000 proprietors, 1,396 were owners of no less than 6,500,000 serfs, or on an average about 4,600 each, principally in the Governments of Kieff, Volhynia, Podolia, Saratoff, and Nijni-Novgorod; 2,462 proprietors with more than 3,000,000 serfs, had between 1,000 and 2,000 serfs, or about 1,200 on an average to each. This latter class were chiefly in the above-mentioned

Governments, and in Central Russia, namely, Tver and Kostroma, also in the bed of the Volga.

About 8,000,000 serfs were owned by 20,162 proprietors, possessing from 200 to 1,000 each. This class, which approaches nearest the general average, is pretty evenly divided among all the governments, but is more especially numerous in Tula.

Over 3,800,000 serfs belonged to 36,179 proprietors, who possessed between 40 and 200 each. This class of proprietors is to be found everywhere, but especially in the governments of Great Russia, which form a kind of square in the centre of Russia.

The class of proprietors, each with less than forty serfs, comprised 42,959 with 700,000 dependants (averaging sixteen to each owner). These proprietors, who are for the most part poor, abound in Lesser Russia (Tschernigoff, Poltawa, Kharkoff, and Kursk), as well as in the West and North (Smolensk, Wilna, and Novgorod). The landed proprietors in the country of the Don Cossacks are of the same character.

Lastly, we find 3,683 proprietors with about 25,000 serfs, but *without land* (averaging six to each). This class is nowhere considerable, but appears in the south (Kieff, Tschernigoff, Kharkoff) in the Crimea, Ekaterinoslaw, Kherson, &c., in Moscow and St. Petersburg. On the Don they are wanting altogether.

It is worthy of notice, that in the governments where the land is held by the intermediate and small proprietors, the disposition towards emancipation was the least favourable. Much more sympathy was found among the large proprietors, with a few exceptions.

A question which suggests itself in the consideration of the foregoing figures remains to be answered. Have the serfs increased in the same proportion as the general population? A glance at the results of the three last censuses will enable us to resolve this question. These enumerations give for the general population an increase of 16·8 per cent., or about nine millions in twenty-two years, 1836-58, whereas the total serf population stood thus:—

	Census of 1836.	Census of 1851.	Census of 1858.
Serfs attached to the land	21,163,099	20,576,229	20,158,231
Domestic serfs	914,524	1,035,924	1,467,378
Temporary serfs	228,375	253,609	354,324
Serfs belonging to institutions	376,521	86,933	40,554
" mines and } manufactories	95,571	435,021	542,599
Total	22,778,090	22,367,716	22,563,086

During the twenty-two years, therefore, the serf population has

absolutely decreased. Since 1851 it has remained almost stationary. Looking at the classes separately we find the number of agricultural serfs had steadily decreased, a circumstance which may be explained by (1) the yearly recruiting, (2) the liberation of serfs given over to other positions, (3) various causes operating against their increase, such as bad treatment, poverty, high rate of mortality, &c. Many proprietors, partly from necessity and partly from the fear of emancipation so continually threatened for twenty years, transferred their serfs from the soil to domestic service, in order not be compelled to make over any of their land to them. Thus an increase of 50 per cent. since

TABLE showing the Distribution of SERFS (including Women and Children)

1 Governments or Divisions.	2 Serfs attached to the Land.	3 Domestic Serfs.	4 Temporary Serfs.	5 Serfs belonging to Insti- tutions.	6 Serfs attached to Manu- factories and Mines.
Archangel	—	20	—	—	—
Astracan	11,848	579	—	—	—
Bessarabia	4,922	5,923	—	—	—
Vilna	368,154	19,305	14,071	1,019	—
Vitebsk	429,692	11,903	3,403	1,235	—
Vladimir	662,541	25,881	—	3,508	7,607
Vologda	207,539	7,613	—	1,126	1,499
Volhynia	686,911	416	176,690	144	—
Voronezh	451,579	65,767	—	420	2,480
Viatka	35,446	1,612	—	—	19,115
Grodno	335,963	13,207	3,988	8,144	—
Don Kosacks	281,109	5,047	—	—	—
Ekatherinoslav	272,235	56,295	—	—	—
Kasan	196,908	15,943	—	—	1,567
Kalouga	556,032	29,666	—	85	36,834
Kieff	1,080,421	7,303	33,338	—	—
Kowno	332,469	14,605	17,572	—	—
Kostroma	485,431	31,754	—	—	498
Kourak	563,311	136,499	—	2,964	21,815
Minsk	546,802	14,434	36,658	1,266	—
Mohileff	556,297	15,183	—	789	—
Moscow	585,911	28,721	—	2,133	4,547
Nijni-Novgorod	711,883	18,600	—	—	12,310
Novgorod	392,940	26,915	—	207	—
Olonetz	10,483	773	—	205	—
Orenburg	125,175	12,244	—	—	99,555
Orel	620,720	87,358	—	1,247	14,703
Penza	507,314	38,427	—	29	3,960
Perm	367,288	14,152	—	—	277,717
Podolia	968,026	6,306	65,968	751	—

* Excluding

† Excluding

1886 in the class of domestic serfs is accounted for. The same remark applies to the serfs attached to mines and manufactories, whose real increase, however, is not so great as it appears, as they were sometimes counted together with the agricultural serfs. The very striking diminution of serfs belonging to institutions is the result of the abolition of the monasteries and the abrogation of serfdom on the church property of the Western provinces.

Thus, during the last few years, the cause of freedom of the serfs has progressed, and for the first time in 1861 the word "serf" has been for ever blotted out.

in the RUSSIAN EMPIRE belonging to Private Proprietors at the close of 1858.

7	8	9	10	11	12
Total of Serfs.	Number of Proprietors of Serfs.	Average Number of Serfs to each Proprietor.	GENERAL POPULATION.	Per-centage of Serfs.	Government or Divisions.
20	3	6.66	274,951	0.007	Archangel
12,427	86	144	477,492	2.60	Astracan
10,844	271	40	919,107	1.17	Bessarabia
402,549	2,096	192	876,116	45.95	Vilna
446,233	1,571	284	781,741	57.08	Vitebsk
692,532	2,659	263	1,207,908	57.91	Vladimir
217,777	1,264	172	951,593	22.89	Vologda
864,161	2,341	369	1,528,328	56.54	Volhynia
520,246	2,632	197	1,930,859	26.94	Voronesh
56,173	106	530	2,123,904	2.64	Viatska
361,302	1,605	225	881,881	40.97	Grodno
286,156	2,911	98	896,870	31.91	Don Kosacks
328,530	2,448	134	1,042,681	31.51	Ekatherinoslav
214,418	907	236	1,543,344	31.89	Kasan
622,616	2,440	255	1,007,471	61.80	Kalouga
1,121,062	1,554	721	1,944,334	57.66	Kieff
364,646	1,547	236	988,287	36.90	Kowno
617,683	3,264	188	1,075,988	57.41	Kostroma
724,589	5,475	132	1,811,972	39.99	Koursk
599,160	1,967	304	986,471	60.74	Minak
572,269	2,165	264	884,640	64.69	Mohileff
621,312	2,439	254	1,599,808	38.84	Moscow
742,793	1,411	526	1,259,606	58.97	Nijni-Novgorod
420,062	4,261	98	975,201	43.07	Novgorod
11,461	219	52	287,354	3.99	Olonets
236,974	895	265*	2,007,075	11.81	Orenburg
724,028	3,823	189	1,532,034	47.26	Orel
549,730	2,029	271	1,188,535	46.25	Penza
659,157	68	9.693†	2,016,572	32.21	Perm
1,041,051	1,554	670	1,748,466	59.54	Podolia

col. 6, only 153.

col. 6, only 5,500.

TABLE showing the Distribution of SERFS

1	2	3	4	5	6
Governments or Divisions.	Serfs attached to the Land.	Domestic Serfs.	Temporary Serfs.	Serfs belonging to Insti- tutions.	Serfs attached to Manu- factories and Mines.
Poltawa	595,760	85,851	—	61	—
Pskoff	360,639	19,526	—	—	—
Riassan	722,225	69,239	—	131	14,800
Samara	213,253	20,067	—	83	1,050
St. Petersburg	239,748	12,966	2,636	4,161	781
Saratoff	613,445	44,100	—	8	—
Simbirsk	416,873	25,582	—	29	528
Smolensk	709,506	49,014	—	1,518	1,149
Stavropol	13,739	1,733	—	—	—
Tauria (Crimea)	35,642	5,396	—	25	—
Tamboff	665,533	79,474	—	62	16,638
Tver	713,675	41,433	—	—	—
Toula	736,221	66,063	—	3,223	2,636
Kharkoff	379,795	91,247	—	123	—
Kherson	260,760	60,490	—	—	—
Tschernigoff	500,000	53,622	—	—	—
Yaroslavl	523,266	28,226	—	5,863	173
Yénisseïsk	151	115	—	—	—
Trans-Baikalia	—	11	—	—	—
Irkutsk	—	13	—	—	488
Tobolsk	2,384	616	—	—	149
Tomsk	266	138	—	—	—
Yakoutska	—	7	—	—	—
Littoral of the Pacific	—	—	—	—	—
Total	20,158,231	1,467,378	354,324	40,554	542,599

* Excluding col. 6, only 6.

† Excluding cols. 5, 6, and taking but cols. 2, 3, 4 (serfs of the

in the RUSSIAN EMPIRE in 1858—Contd.

7 Total of Serfs.	8 Number of Proprietors of Serfs.	9 Average Number of Serfs to each Proprietor.	10 GENERAL POPULATION.	11 Per- centage of Serfs.	12 Government or Divisions.
681,672	7,322	93	1,819,110	37.47	Poltawa
380,162	1,952	194	706,462	53.81	Pskoff
806,395	5,215	154	1,427,299	56.50	Riasan
234,453	887	264	1,530,039	15.32	Samara
260,292	1,509	165	1,083,091	24.03	St. Petersburg
657,553	2,592	254	1,636,135	40.19	Saratoff
443,012	1,625	273	1,140,973	38.83	Simbirsk
761,187	5,308	143	1,102,076	69.07	Smolenak
15,472	130	119	640,739	2.41	Stavropol
41,063	396	111	687,343	5.97	Tauria (Crimea)
761,707	3,265	233	1,910,454	39.87	Tamboff
755,108	3,507	215	1,491,427	50.63	Tver
808,143	3,864	209	1,172,249	68.94	Toula
471,165	3,265	144	1,582,571	29.77	Kharkoff
321,250	2,688	119	1,027,459	31.27	Kherson
553,622	4,445	124	1,471,866	37.61	Tschernigoff
557,528	2,810	199	976,866	57.07	Yaroslav
266	5	53	303,266	0.09	Yénisseïsk
11	2	6	352,876	0.001	Trans-Baikalia
501	2	250*	319,930	0.16	Irkutak
3,149	68	46	1,021,266	0.31	Tobolsk
404	27	15	701,001	0.06	Tomsk
7	2	3.50	222,533	0.003	Yakoutak
—	—	—	21,860	—	Littoral of the Pacific
22,563,086	106,897	211†	61,129,480	36.89	Total

gentry), this per cent. would be only 1.100 (males paying taxes).

On the EARNINGS of AGRICULTURAL LABOURERS in ENGLAND and WALES, 1860. By FREDERICK PURDY, Esq., Principal of the Statistical Department, Poor Law Board, London.

[Read before the Statistical Society, 21st May, 1861.]

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I.—Peculiarities of Agricultural Labourers' Earnings.

It is many years since the subject of the wages of Agricultural Labourers engaged the attention of this Society. Two short papers appear in our *Journal*, showing the rate of wages in certain agricultural counties in 1838. At that time, agriculture, in common with

other branches of national industry, was suffering under protection; the gold fields of California and Australia were unknown; and no considerable alleviation had been effected in the severity of the settlement and poor removal laws. It therefore appeared to the Council, that a paper upon the present rate of agricultural labourers' earnings, would afford an appropriate topic for the consideration of the Society, especially if any comparison could be made with the rate attained under the corn law period.

There are some circumstances in the condition of the agricultural labourer, which, as a preliminary step, are necessary to be considered. His principal earnings consist of the weekly money wages, paid to himself or to members of his family; or payments for task or piece-work, chiefly made to himself; the rate of his weekly earnings by the latter, exceeding the former considerably; there are also the money-wages for harvest, at which the earnings of himself and family will frequently be double the ordinary rates. During harvest time, most farmers allow a liberal, and in some cases an unlimited, supply of beer or cider to all their labourers, in addition to their pay; or increased pay is given specifically in lieu of drink; in some districts, besides beer and cider, food in abundant quantities is given. It is not the fact that the practice of paying part of the labourers wages in food "is now entirely dispensed with," as stated in the discussion on prices and wages at the Statistical Congress;* the custom prevails extensively in Wales, and in some of the western and northern counties. In Devonshire, a regular allowance of cider is made to the men all the year round, or 1s. per week is given instead. In some counties, as Dorset, the farmer pays part of his men's wages in corn, called "gristing or tailing" at 1s. per bushel below the market price. In many places the farmers allow their men potato ground, which they also manure; in other places it is a practice to "lead" fuel for the labourers. In some of the western counties and in Wales, the labourer lodges and boards with the farmer; in other places, a cottage, garden, and potato ground is given, in addition to the wages; in the Shifnal Union this advantage is considered to be equal to about 5l. per annum. In *Northumberland* and *Durham* a peculiar system of hiring labour prevails; the farm labourer or "hind" is provided with a cottage, and is paid by a sliding scale, in kind principally, according to the market price of corn.

The diversity of form under which the labourers obtain their remuneration renders it difficult, if not impossible, to reduce their earnings to a unity of expression in money value; and therefore renders any comparison of the weekly wages of one district with those of another liable to error, if the value of the labourer's perquisites is not kept in view.

* "Report of the Fourth Session," p. 324.

But in stating the money wages and perquisites of the labourer and of his family, we are yet short of his real income. The gleanings of his wife and younger children will produce an amount, which he regards as important. In his own cottage-garden, if he has not a piece of ground especially granted to him for the purpose, he will often grow potatoes enough for the year's supply. He will keep a pig, which when fatted, is for his own consumption; or sometimes, as in Sussex, his wife will rear poultry for market; or, he has common rights, under which he cuts furze, or digs turf for fuel, or which yield an excellent run for his poultry. Now these advantages, which are incidental to the agricultural labourer's position, must be borne in mind when we attempt an estimate of his resources; especially, when those resources are to be contrasted with the wages of artisans and labourers in towns. Nor should it be forgotten that for a considerable part of the year the earnings of his wife and children, who work in the fields at weekly wages, or who assist the husband when engaged at task work, augment his income. There are also some cottage manufactures, by which an addition is made to his earnings. In Bedfordshire and Buckinghamshire, the cottager's family are principally employed in the manufacture of straw-plait and lace; and similar domestic manufactures exist in other rural districts. Finally, the value of wheat gleaned is not to be forgotten;—in 1837, the value of the gleanings of 888 Norfolk and Suffolk families was 423*l.* 12*s.*, or 1*l.* 1*s.* 10*d.* per family.* It is stated, however, in one of the present returns, that "in a good season an active woman will make from 80*s.* to 40*s.* gleanings," (Royston Union).

II.—*Rate of Earnings in 1860.*

The agricultural produce of England and Wales is raised, or rather was raised in 1851, on an area of 24,905,758 acres, which is equal to *two-thirds* of the whole surface of the kingdom. The proportion of arable to pasture land, embraced by that area, is not known, but we have the authority of the Commissioners of the Census for stating that a considerable addition may be made to the number of acres farmed, "on the assumption that many of the "farmers did not return the acreage of pasture or moor land held "by them, in addition to the number of acres actually farmed."† The number of labourers required on this acreage was 1,345,484, including 91,698 small farmers, who returned themselves as employing no labourers.

Those working for wages on the 31st March, 1851, were 1,253,786 who were thus classed:—

* Dr. Kay, *Statistical Journal*, No. III, 1838.

† "Census of Occupations," 1851, Vol. i, p. 80.

Class.	Under 20 Years.	20 Years and Upwards.	Total.
<i>Males:—</i>			
Out-door labourers.....	183,839	724,839	908,678
Shepherds	2,265	10,252	12,517
Farm servants (in-door)	101,608	87,608	189,116
Total Males	—	—	1,110,311
<i>Females:—</i>			
Out-door labourers.....	9,457	34,862	44,319
In-door farm servants (not domestic servants)	51,706	47,450	99,156
Total Females.....	—	—	143,475

Had the census of 1851 been taken two or three months later, the number of women and children employed in out-door labour would have been greater than here returned.

To ascertain the Rate of Earnings of agricultural labourers, the Poor Law Board requested their Inspectors to obtain from a selected number of Unions in each district, those particulars which have been since presented to Parliament. The Unions were selected as representative of the general agrarian industry of the respective districts; the wages and other particulars were mostly procured by the aid of the chairmen of those unions. The gentlemen holding that office at their respective Boards, had the best opportunities of obtaining and verifying the information transmitted to the central department.

I will now proceed to state the most important facts under each division, referring those who may desire minuter details to the parliamentary return moved for by Mr. Villiers (No. 14, "Agricultural Labourer's Earnings," Sess. 1861), and which relates to the quarters ended at Michaelmas and Christmas last, respectively. (Table I and II, Appendix.)

SOUTH EASTERN DIVISION.

This district comprises five union counties, with an area of 4,065,105 *acres*, and a population of 1,628,386 *persons* (census 1851); of the *adult* population 184,601 are engaged in agriculture, or 20·8 per cent. Four of these counties are represented by returns from thirteen unions, namely,—Surrey by the Epsom and Godstone Unions; Kent by Faversham, Eastry, and Romney Marsh; Sussex by Ticehurst, Westhampnett, and Midhurst; Southampton by Droxford and Andover; and Berks by Hungerford, Farringdon, and Wantage Unions.

Weekly Wages.—The men's range from 8s. 8d. to 15s. 6d.—the average for the Michaelmas quarter being 11s. 11½d., and for the Christmas, 11s. 6d. The women's wages average 4s. 7d. and 4s. 6d. in Michaelmas and Christmas quarters respectively. The children's, all of whom are under 16, range from 2s. to 7s., the average being 3s. 7d. in the first, and 3s. 8d. in the second quarter.

Harvest Wages.—Men 21s. a-week for a fortnight or so. When the women assist their husbands at harvesting, which is seldom in this Union (Eastry), their earnings would be 20s. per week.

Allowances.—The only allowance in this district is that of beer, which is generally given at the hay and corn harvest, the quantity varies from one to four quarts per man, daily.

Task Work.—Men in the Michaelmas quarter from 11s. 6d. to 25s. per week, average 16s. 3d.; in the Christmas quarter, 11s. 6d. to 15s., average 14s. 1½d. This work greatly diminishes in the winter; and so far as women and children are concerned, entirely ceases then. Women, in some of the Unions, obtain as much as 7s. 6d. and 12s. per week piece-work, in the Michaelmas quarter.

Special Work.—Reaping wheat, 10s. to 14s. per acre; mowing, 2s. 9d. to 3s. 6d. (with beer); 5s. to 7s. per acre without beer; hoeing turnips (twice), 8s. to 10s. per acre.

The return from Faversham states that "the average earnings of "a family for the quarter ending this Michaelmas, is at least 25 per "cent. less than on an average of years."

SOUTH MIDLAND DIVISION.

Comprises nine union countries with an area of 3,201,290 acres, and a population of 1,284,332 persons; of the adults 167,627 are engaged in agriculture, or 25·4 per cent. Five counties are here represented by returns from nine unions, namely, Herts by Royston and Hitchin; Northampton by Brixworth, Oundle, and Peterborough; Hunts by St. Neots; Beds by Bedford and Woburn; and Cambridge by the Chesterton Union.

Weekly Wages.—The men's range from 9s. 6d. to 12s.; the average of the Michaelmas quarter being 10s. 7d., and Christmas 10s. 4d. The women's wages 1s. to 7s. 6d.; the Michaelmas average was 4s. 7d., the Christmas 2s. 8d. The children's wages range from 6d. to 5s. 6d.; the Michaelmas average was 3s. 5d., the Christmas 3s. 2½d.

Harvest Wages.—In the Bedford Return it is stated the harvest "wages are usually double to what they generally are, with an "allowance of drink." In other places they range from 13s. to 20s.

Allowances.—The practice of giving beer is by no means general in this district; though it is allowed during harvest in some of the

unions, where the men have from two to four quarts daily, the women and children half that quantity.

Task Work.—Men in the Michaelmas quarter 12*s.* to 15*s.* per week, average 13*s.* 7*d.*; in the Christmas quarter 11*s.* to 18*s.*, but the average was then only 13*s.* 1*d.* Women in the Michaelmas quarter 3*s.* 6*d.* to 7*s.* 6*d.* Children 2*s.* 6*d.* to 6*s.* It is mentioned in the Woburn Return that very few women are employed in agriculture, but that "the principal of them plait, and earn about 2*s.* 6*d.* or 8*s.* "weekly," and the same at lace-making.

EASTERN DIVISION.

Three counties are comprehended in this division, area 3,214,099 *acres*, population 1,113,982 *persons*; of the adults 160,249 are engaged in agriculture or 28·5 per cent. Essex is represented by returns from Billericay, Tendring, and Dunmow; Suffolk by Stow, Samford, and Blything; and Norfolk by Aylsham, Depwade, and Downham Unions.

Weekly Wages.—The *men's* vary from 10*s.* to 16*s.* 10*d.*; average for the Michaelmas quarter 12*s.* 1*d.*, and for Christmas 11*s.* The *women's* average 4*s.* 4*d.*, and 3*s.* 11*d.* for the respective quarters. The *children's* range from 1*s.* 6*d.* to 7*s.*; the average for the two separate quarters being 3*s.* 7*d.* and 3*s.* 9*d.* respectively.

Harvest Wages.—6*l.* is stated to be the sum paid to the men for the harvest month in several of the unions; in others 18*s.* to 22*s.* per week, for five weeks, besides an extra allowance of beer, or of malt and hops.

Allowances.—Beer, and in some cases food, is allowed during hay-time and harvest; but in some of the unions no allowances are made; in others the farmers prefer giving their labourers 1*s.* per week in lieu of beer. In the Dunmow Union 5*s.* per week, in addition to the harvest wages of 21*s.*, is given for five weeks instead of beer. Sometimes two or three bushels of malt are given instead of beer, or 25*s.* or 30*s.*

Task Work.—Men in the Michaelmas quarter 11*s.* 6*d.* to 23*s.* per week, average 15*s.* 8*d.*; in the subsequent quarter 11*s.* 6*d.* to 15*s.* average 13*s.* 8*d.* There appears to be no task work for women or children in this division of the Kingdom, except in two of the Norfolk Unions (Depwade and Downham) where, in the harvest quarter, women's earnings are stated to be 4*s.* and 9*s.* a week respectively.

Special Work.—Haymakers and mowers 8*s.* per acre, and two quarts of beer daily; from the same place (Stow Union) it is stated that "Harvest men have been taking their work to get the harvest "all carted and stacked, each man about 12½ to 13 acres, at 8*s.* "8*s.* 6*d.* to 9*s.* per acre, with three bushels of malt worth 27*s.*; and "in some cases hops also, three pounds, worth 3*s.*"

SOUTH WESTERN DIVISION.

Comprises five union-counties, area 4,994,490 *acres*, population 1,803,291 *persons*; 227,554 of the adults are engaged in agriculture, or 23·3 per cent. The counties are represented by returns from twelve unions, namely, Wilts by Devizes and Alderbury; Dorset by Wimborne and Cranborne, Wareham and Purbeck, and Cerne; Devon by Axminster, Okehampton, Tiverton and Barnstaple; Cornwall by Camelford; and Somerset by the Shepton Mallet and Axbridge Unions.

Weekly Wages.—*Men's* range from 8*s.* to 12*s.*; the Michaelmas average being 9*s.* 6½*d.*, Christmas 9*s.* 5½*d.* The *women's* wages average 3*s.* 9*d.* and 4*s.* for the respective quarters. The *children's* range from 2*s.* to 4*s.* 6*d.*; the average of the first quarter was 3*s.* 4*d.*, of the second 2*s.* 9½*d.*

Harvest Wages.—Are mentioned in the Wimborne and Cranborne Union only; they are stated to be 12*s.* per week for an able-bodied labourer, with an allowance of one gallon of ale or cider per day.

Allowances.—In some of the unions there are no allowances as a rule, but ale or cider is given at harvest. In the Devon and Somerset Unions two to three pints of cider per day is given the men at all seasons. In Devonshire, in 1837, when the weekly wages averaged 8*s.*, the value of the cider allowed per man was generally equal to 2*s.* In some parts the labourers are allowed corn at a fixed price, which at the present market value is an advantage to them. Some farmers allow their labourers a plot of potato ground, rent free.

Task Work.—Men in the Michaelmas quarter 11*s.* 6*d.* to 22*s.* 6*d.*; average 13*s.* 8*d.* Christmas 11*s.* to 13*s.*, average 11*s.* 9*d.* There appears to be no piece work for women or children in this division, but one union (Alderbury) gives the earnings of women at 6*s.* per week, during the Michaelmas quarter.

WEST MIDLAND DIVISION.

This district is formed of six union counties, area 3,848,666 *acres*, population 2,132,930 *persons*, of whom 179,363 are *adults* engaged in agriculture, that is 15·5 per cent. There are returns from sixteen unions; Gloucester is represented by Newent, Stroud, Stow-on-the-Wold, and Cheltenham; Hereford by Ledbury, Hereford, and Bromyard; Salop by Shifnal and Atcham; Stafford by Burton-on-Trent; Worcester by Stourbridge, Evesham, Pershore, and Droitwich; and Warwick by the Warwick and Stratford-on-Avon Unions.

Weekly Wages.—The *men's* range from 9*s.* to 13*s.* The Michaelmas average was 10*s.* —½*d.*; the Christmas 9*s.* 11½*d.* The *women's* averaged 4*s.* 2*d.* in the first, and 3*s.* 11*d.* in the second quarter. The

children's varied from 2s. to 6s.; the average for the two quarters was 3s. 3d. and 3s. 5d. respectively.

Harvest Wages.—For men 15s. to 20s. per week, with a liberal allowance of beer or cider.

Allowances.—In Gloucester, Hereford, Salop, and Worcester cider is allowed in quantities varying from one to three quarts daily. In Stafford and Warwick beer, during harvest. But in some unions no allowances are made. In the Shifnal Union, where two quarts of beer are given to each man daily, a cottage and garden, one-sixteenth of an acre of potato ground, is given rent free, worth 4l. to 5l. per year; the weekly wages being 10s. In the Northern parts of the Burton-on-Trent Union the men receive 7s. per week and their maintenance for three quarters of the year, and 10s. and maintenance for the other quarter.

Task Work.—Men in the Michaelmas quarter 12s. to 17s. 6d., average 14s. 4d.; Christmas 12s. to 16s., average 13s. 4½d. Women at the first quarter from 4s. to 6s. 6d., average 5s.

Special Work.—Carters, cowmen, and shepherds generally obtain from 1s. to 2s. 6d. per week more than other labourers. Ploughboys in some parts are hired by the year, with 3l. or 4l. wages. In the Droitwich Union 2s. 9d. to 3s. 6d. per acre is paid for mowing grass, but no food is allowed.

NORTH MIDLAND DIVISION.

Comprises five union counties, area 3,537,007 *acres*, population, 1,214,538 *persons*; the number of adults engaged in agriculture 142,389, or 21·7 per cent. of the population aged twenty years and upwards. These counties are represented by six unions, namely: Leicester by Market Bosworth and Melton Mowbray; Rutland by Oakham; Lincoln by Louth; Notts by Newark; and Derby by the Ashbourne Union.

Weekly Wages.—*Men's* range 11s. to 15s.; the Michaelmas quarter average was 13s. 1d., Christmas, 12s. 4½d. *Women's*, the average for the former was 4s. 8d., for the latter quarter 5s. The *children's* wages varied from 2s. to 7s. per week; the two quarters' average being 3s. 2d. and 3s. 8d. respectively.

Harvest Wages.—Cutting corn in Lincoln and Notts 8s. 6d. to 10s. per acre.

Allowances.—Drink and food allowed during harvest only. In the Market Bosworth Union 4s. to 5s. is allowed weekly instead. In the Melton Mowbray Union 1s. 3d. weekly for beer, or eight quarts. Ashbourne must be an agreeable place for the haymaker; the return from that union states, that "During the hay harvest some of the "labourers engage with the farmer for a month, and receive from "15s. to 18s. weekly, with an unlimited quantity of food of good

"quality, consisting of new milk, bread, beef, bacon, cheese, &c., with from one quart to three pints of good homebrewed ale daily."

Task Work.—Men in the Michaelmas quarter 18s. to 28s. 6d. per week, average 22s.; Christmas 15s. 6d. to 16s., average 15s. 10d.; only one of the Unions state that any sums are paid to women and children for piece work, and that is Newark, where the former are said to obtain 9s., and the latter 6s. per week in the Michaelmas quarter.

Special Work.—Cutting corn from 8s. 6d. to 10s. per acre. In Derbyshire the labourer is paid in the corn harvest for cutting "corn at per thrave, or twenty-four sheaves; for wheat 6d., for oats 2½d. per thrave; a good hand will cut twenty thraves of wheat per day; oats thirty to thirty-five thraves per day," but no food or drink is allowed. Mowing 8s. 6d. to 5s. per acre, with one quart of ale for each acre mown.

NORTH WESTERN DIVISION.

Is constituted by the union counties of Chester and Lancaster, area 2,012,890 *acres*, population 2,490,827 *persons*; the number of the *adult* population engaged in agriculture 112,184 or 8·3 per cent. of the total adults. This division is represented by six Returns; namely, Chester by Runcorn, Nantwich, and Hawarden; and Lancaster by the Ormskirk, Clitheroe, and Garstang Unions.

Weekly Wages.—*Men's* 11s. to 18s., in some places the labourers, or part of them, are boarded with the farmers, when their pay is from 5s. to 7s. less. The average of the full wages for Michaelmas was 13s. 8d. and Christmas 12s. The average of the *women's* wages was 6s. 11d. for the former, and 6s. 4d. for the latter quarter. It is one of two highest districts in the kingdom for women's wages. The *children's* wages ranged from 3s. to 8s. in the first quarter, average 4s. 9½d.; and from 2s. to 5s. in the second, average 3s. 7d.

Harvest Wages.—In Lancashire 15s., 18s., 21s., and 24s. per week.

Allowances.—Food and drink during harvest only; at that time the men, women, and children's meals appear to be supplied by the farmers. In one union, Clitheroe, no allowances are made, but the wages are higher there.

Task Work.—Men in the Michaelmas quarter from 15s. to 21s., average 18s.; Christmas 14s. to 15s., average 14s. 8d.

Special Work.—Draining, men 15s. per week, boys 7s. 6d., (Garstang Union.)

YORK DIVISION.

This district comprises the three Ridings, area 3,654,636 *acres*, population 1,789,047 *persons*, of the *adults* 137,681 are employed in

agriculture, or 14·8 per cent. Seven unions represent this division, namely, West Riding by Settle, Pateley Bridge, Doncaster, and Thorne; and the North Riding by the Malton, Leyburn, and Richmond Unions.

Weekly Wages.—*Men's* 12s. to 16s., the average for Michaelmas being 14s. 3½d., and Christmas 12s. 8d. The average for the *women's* was 5s. 9½d. and 4s. 7d. respectively. *Children's* range from 2s. to 6s.; the average of the former quarter being 3s. 7d., and the latter 2s. 11d.

Harvest Wages.—"A very few of the best workmen have been "hired for four weeks during harvest for 18s. per week in money, "with the allowance daily of breakfast, dinner, and supper with about "three pints of ale" (Doncaster Union). 24s. weekly at task work during the harvest (Malton Union). "A man with his wife and child "might earn together, supposing that they were in full time, 6s. 6d. "per day," or 42s. per week (Thorne Union).

Allowances.—Giving food or drink appears to be the exception, and not the rule, in this district; when, if any allowance of the sort is made, it is at harvest. In the Malton Union where the men's wages are only 8s., the labourer has in addition "six days' victuals."

Task Work.—Men in the Michaelmas quarter had from 15s. to 18s. per week, average 16s. 10d.; Christmas 12s. 6d. to 18s., average 15s. 1½d.

Special Work.—Draining at which the labourer will earn "18s. 6d. per week if the weather is at all tolerable," (Richmond Union.)

NORTHERN DIVISION.

This division contains four union counties, with an area of 3,492,322 acres, and a population of 969,126 persons; of those aged 20 and upwards 83,822 are employed in agriculture, which is a ratio of 16·1 per cent. on the *adult* population. These counties are represented by ten unions; namely, Durham by Darlington and Sedgfield; Northumberland by Morpeth, Berwick-on-Tweed, and Glendale; Cumberland by Brampton, Wigton, and Bootle; and Westmoreland by East Ward and Kendal.

There is a peculiarity to be noted in regard to the agricultural labourer of Northumberland and Durham, where the farm servants, who are called "hinds," make a special engagement with the farmer. "Each farm," says Sir F. H. Doyle, "is provided with an adequate number of cottages having gardens, and every man who is engaged "by the year has one of these cottages; his family commonly finds "employment more or less; but one female labourer he is bound to "have always in readiness to answer the master's call, and to work at "stipulated wages; to this engagement the name of bondage is given

"and such female labourers are called bondagers, or women who work the bondage. * * * * Each man, instead of working for weekly wages, is hired for a-year. He is provided with a cottage and small garden upon the farm, for himself and family, several of whom in many cases are engaged for the year, as well as himself. The wages of the hind are paid chiefly in kind, those of his sons, &c., either in money, or partly in money and partly in kind."*

In the present Returns the value of the hind's remuneration is stated to be equal to 15s. per week.

Weekly Wages.—Men's range from 9s. to 18s., the Michaelmas average being 14s. 10d.; Christmas 18s. 4d. In this district the women's wages attain the highest point, the average for the first quarter was 10s. 6d., and 5s. 8d. for the second. The children's wages vary from 3s. to 8s., the Michaelmas average was 5s. 9½d.; Christmas 8s. 9d.

Harvest Wages.—Hay and corn harvest 15s. to 21s. per week for men with rations, or 1s. 6d. per week extra in lieu of rations. Women 9s. with 6s. for rations (Bootle Union); 15s. and 18s. in the Glendale and Berwick-on-Tweed Unions.

Allowances.—By no means general in this district, when anything is given, it is food and drink in harvest time. But in some places a cottage rent free and garden are given to the labourers in addition to their ordinary wages (Darlington and Morpeth Unions).

Task Work.—Men in the Michaelmas quarter 17s. 6d. to 25s., average 19s. 7d.; Christmas 14s. to 18s., average 16s. 1½d.

Special Services.—It is the practice in this district for the farmers to hire their servants by the half-year or year. Those called "hinds" are "men with wives or families living in cottages on the farm, have them rent free in general, with an allowance of twenty bushels of potatoes in addition, and in many instances, their bread corn at a limited or stated price" (Darlington Union). The "hinds" receive yearly wages, which are paid in kind in corn principally, with an allowance for a cow or pig, &c.," again "the wages alter according to the price of corn; when wheat is worth 7s. 6d. per bushel; barley 5s. per bushel, oats 3s. per bushel, peas 5s. per bushel, and potatoes 10s. per load, the usual allowance is 5s. to 6s. per week, and which, with the privileges mentioned above, make the run of wages equal to about 15s. to 18s. per week for men according to their ability."† In the Glendale Union it appears that "the largest portion of the labourers are hired by the year, on wages paid in corn, cow's keep, house and garden, &c., and a small portion of money, equal to about one-eighth or one-seventh of the whole value."

* Sir F. H. Doyle's "Report on the Employment of Women and Children in Agriculture," Sess. 1843.

† Mr. Villier's Return, No. 14, 1861.

WELSH DIVISION.

This, the last division, comprises the union county of Monmouth and whole of Wales, area 5,226,881 *acres*; population 1,188,914 *persons*; of the *adults* 164,773 are engaged in agriculture or 25·7 per cent. of all persons above 20 years of age. Fourteen unions represent this division, namely, Monmouthshire by Monmouth, Bedwellty, and Newport; and, Wales by Merthyr Tydvil, Bridgend, and Cowbridge, Gower, Llanelly, Llandilofawr, Carmarthen, Haverfordwest, Cardigan, Crickhowell, Knighton, and Conway.

Weekly Wages.—The *men's* range from 8*s.* 6*d.* to 15*s.*; the average for the Michaelmas quarter was 11*s.* 1*d.*, and for Christmas 11*s.* 4*d.* The *women's* average 5*s.* 1*d.* and 4*s.* 8*d.* in the two quarters respectively. The *children's* wages vary from 1*s.* 6*d.* to 9*s.*; the average for Michaelmas was 3*s.* 9*d.*, and for Christmas 3*s.* 8½*d.* Many labourers and farm servants are hired by the year, and live with their masters, men's wages are then 10*l.* to 18*l.*; women 4*l.* 10*s.* to 7*l.*; boy's 6*l.* to 8*l.*, and girl's 2*l.* to 4*l.*

Harvest Wages.—From the practice which prevails in this district of hiring the labourers by the year, and lodging and boarding them with the farmers, there appear to be no special earnings for harvest work, except in a few places. The men's harvest wages in the Cardigan and Knighton Unions are returned as 15*s.* or 16*s.* without food, or 8*s.* with food; women 3*s.*, 4*s.*, and 6*s.* with food; and in some other unions 6*s.* without food.

Allowances.—To those men who do not lodge with the farmers there is an allowance of beer or cider, at the hay and corn harvest, in quantity varying from two to four quarts daily; but this allowance only prevails in some parts of this district. It may be remarked with respect to the charge for the labourer's board, in this and other divisions of the Kingdom, that it is usually estimated at 5*s.* per week, that amount being the difference in the wages of a man who is supplied by the farmer, and of one who purchases his own food.

Task Work.—Men's earnings in the Michaelmas quarter vary from 18*s.* to 21*s.* per week, average 15*s.* 10*d.*; in the Christmas quarter 18*s.* to 16*s.* 6*d.*, average 14*s.* 5*d.*

Special Work.—Draining is 15*s.* per week for men.

ENGLAND AND WALES.

Summarising such of the foregoing facts, as readily yield to the process, we arrive at the following results for the ten divisions of the kingdom. The area (excluding the metropolis) contains 37,246,886 *acres*, with a population of 15,565,373 *persons*; the number of *adults* is 8,421,634, of whom 1,560,243 are engaged in agriculture, being 18·5 per cent. of the whole. The agricultural class, as given here,

and in the ten divisions above, include all persons aged 20 and over, returned under Class IX of the Census of Occupations (1851), which class embraces all those who are immediately dependent on this industry, as landowners, farmers, labourers, and their adult kinsfolk. It forms the second group of the industrial statistics of the "Poor Rates and Pauperism" series, that is

GROUP (b.)—*Agriculture.*

Class IX.—*Persons possessing or working the LAND, and engaged in growing GRAIN, FRUITS, GRASSES, ANIMALS, and other Products:—*

Sub-class 1. In Fields and Pastures	1,502,162
„ 2. Woods.....	7,005
„ 3. Gardens	66,914

102 unions represent the kingdom; this is about *one-fifth* of those which are wholly or chiefly agricultural.

Weekly Wages.—Michaelmas quarter, the *men's* range from 8*s.* to 18*s.*: the *women's* from 1*s.* to 10*s.*; the *children's* from 1*s.* 6*d.* to 9*s.* Christmas quarter, the *men's* range from 9*s.* to 15*s.*; the *women's* from 1*s.* to 9*s.*; the *children* from 6*d.* to 7*s.* The average of the half-year in respect to the *men's* wages was 11*s.* 6*d.*; the *women* and the *children* 4*s.* 2*d.*

Task Work.—Michaelmas quarter, *men's* earnings vary from 11*s.* 6*d.* to 28*s.* 6*d.*, the average being 15*s.* 10*d.*; Christmas quarter 11*s.* to 18*s.* per week, the average being 13*s.* 9*d.*

The wages of shepherds, carters, horsemen, and cowmen are generally 1*s.* to 2*s.* 6*d.* more than the ordinary weekly wages of the other labourers; besides which they receive more liberal perquisites, in the way of rent-free cottages and gardens, and money gifts at special seasons.

III.—*Scarcity of Labour; Rise in Wages.*

The form of return, from which this paper has been compiled, was confined to an inquiry into the rate of wages and amount of allowances, in certain rural unions; but in some instances the information obtained extended beyond a mere answer to those queries. In several places a scarcity of labour and a rise in wages are mentioned. From the Hereford Union the informant says "I am disposed to think the wages of agricultural labourers will increase, and indeed have done so within this last two years, as there has been almost a scarcity of labour, for when the farmer is receiving high prices for his produce he spends more in labour." With reference to the Stourbridge Union it is stated that "Men can always get work, and scarce few of them remain long with the same employer. The tran-

"sition from the farm to the works is easy; in the latter labourers' wages vary from 2*s.* 6*d.* to 3*s.* per day, the agriculturist's wages being 11*s.* per week." In respect of the Gower Union it is stated that "The increasing demand for labour in the neighbouring mineral district has (combined with emigration) caused an advance of 30 per cent. in the wages of agricultural labourers within the last twelve years." The respondent for the Llanelly Union says that the men get employment in the iron works there, or at Merthyr; "this raises the rate of wages considerably, and if I want farm labourers, I generally go to a distance to look for them."

A table is given below of the average weekly wages in thirty-four counties in 1824, 1837, and 1860; the data for 1837 I have, with the permission of the Poor Law Board, abstracted from a valuable, but unpublished, series of reports made to the Poor Law Commissioners in that year, by their Assistant Commissioners, upon the rate of wages throughout the country. The rise in the rate, as indicated by the table, is certainly not so great as might have been anticipated: in 1837 the average was 10*s.* 4*d.*, and in 1860, 11*s.* 7*d.*, which is but an increase of 12·1 per cent. The increase, however, between 1824 and 1860 was 2*s.* 8*d.* or 24·1 per cent. Taking the average of *all* the counties returned in 1824 (Table IV), as representing the Kingdom, and comparing it with the similar average for 1860, the facts are these—

		<i>s.</i> <i>d.</i>		
1824	average wages	9	4	} Increase 2 <i>s.</i> 8 <i>d.</i> , or 28·7 per cent.
1860	"	12	0	

The following are some of the most important increases in each division. In Sussex men's weekly wages in 1824 were 9*s.* 7*d.*; in 1837, 10*s.* 7*d.*; in 1860, 11*s.* 8*d.*; the *rise* in thirty-six years was 2*s.* 1*d.* In Hants the wages were 8*s.* 6*d.*, 9*s.* 6*d.*, and 12*s.*, *increase* 3*s.* 6*d.* Northampton, 8*s.* 1*d.*, 9*s.*, and 11*s.*, *rise* 2*s.* 11*d.* Suffolk, 8*s.* 3*d.*, 10*s.* 4*d.*, and 10*s.* 7*d.*, *increase* 2*s.* 4*d.* Wilts, 7*s.* 7*d.*, 8*s.*, and 9*s.* 6*d.*, *increase* 1*s.* 11*d.* Dorset, 6*s.* 11*d.*, 7*s.* 6*d.*, and 9*s.* 4*d.*, *increase* 2*s.* 5*d.* Hereford, 7*s.* 1*d.*, 8*s.*, and 9*s.*, *increase* 1*s.* 11*d.* Lincoln, 10*s.* 2*d.*, 12*s.*, and 13*s.*, *increase* 2*s.* 10*d.* North York, 10*s.* 8*d.*, 12*s.*, and 13*s.* 6*d.*, *increase* 3*s.* 3*d.* Durham, 11*s.* 6*d.*, 12*s.*, and 14*s.* 8*d.*, *increase* 2*s.* 9*d.* Wales, 8*s.*, 7*s.* 6*d.*, and 11*s.* 2*d.*, *increase* 3*s.* 2*d.* This large increase in the principality, nearly equal to 40 per cent., appears to be chiefly due to the action of the iron works and collieries upon the labour market there.

The thirty-four counties previously alluded to are the following, namely:—

Divisions and Counties.	Average Weekly Wages of Men in		
	1824.	1837.	1860.
SOUTH-EASTERN.			
Surrey (Extra Metropolitan)	s. d. 10 8	s. d. 10 6	s. d. 12 9
Kent ditto	11 9	12 -	12 -
Sussex	9 7	10 7	11 8
Southampton	8 6	9 6	12 -
SOUTH MIDLAND.			
Hertford	9 -	9 6	10 -
Northampton	8 1	9 -	11 -
Bedford	8 7	9 6	10 3
EASTERN.			
Essex	9 4	10 4	11 3
Suffolk	8 3	10 4	10 7
Norfolk	9 1	10 4	10 7
SOUTH-WESTERN.			
Wilts	7 7	8 -	9 6
Dorset	6 11	7 6	9 4
Devon	7 6	8 -	9 2
Somerset	8 2	8 8	10 -
WEST MIDLAND.			
Gloucester	9 3	9 -	9 5
Hereford	7 1	8 -	9 -
Salop	8 10	9 -	10 -
Stafford	10 8	12 -	12 6
Worcester	8 2	9 6	10 -
Warwick	8 10	10 -	10 9
NORTH MIDLAND.			
Lincoln	10 2	12 -	13 -
Nottingham	10 3	12 -	12 9
Derby	10 10	12 -	12 -
NORTH WESTERN.			
Chester	10 8	13 -	11 8
YORK.			
West Riding	12 6	12 -	13 6
East Riding	11 8	12 -	13 6
North Riding	10 3	12 -	13 6
NORTHERN.			
Durham	11 6	12 -	14 3
Northumberland	11 5	12 -	14 -
Cumberland	12 3	12 -	15 -
Westmoreland	12 -	12 -	14 3
WELSH.			
Monmouth	10 1	10 6	11 8
Wales	8 -	7 6	11 2
<i>Average of 34 Counties, counting North and South Wales as two</i>	9 4	10 4	11 7

There may be, and probably is, a greater rise in the *earnings* than in the wages. The weekly income by task work is 25 per cent. greater than by wages; and, if that plan of payment should be on the

increase, there will be a corresponding augmentation of the labourer's receipts, which cannot be measured by any statistics we are at present possessed of. Moreover, from the demand for labour, the wife and children of the cottager, as well as himself, may now obtain more constant employment than formerly.

I have placed in the Appendix a Table (III) of the average rate of wages of husbandmen in several decenniums, commencing in the middle of the last century; it is transcribed from particulars laid before the Lords Committee on the Poor in 1830-31, by the Rev. Mr. Beecher, one of the principal witnesses examined on that occasion. This gentleman appears to have devoted many years to a patient study of all the circumstances affecting the welfare of the agricultural poor.

We may form some notion of the assistance which the labourer derives from the work of his wife and children by an inspection of the next table. It relates to Norfolk and Suffolk in the year 1837. I have taken it, with a slight alteration, from Dr. Kay's short, but important paper in No. III of the *Journal*.

Families.	Condition.	Average Number of Children.	Average Annual Income.	Difference as compared with Earnings of a Single Man.
36	Single men	—	£ 25·0	£ —
64	No children at home	—	30·6	5·6
166	All children under 10	3	32·6	7·6
120	One child above 10	4	35·4	10·4
92	Two children above 10	5	40·5	15·5
44	Three „ „	6	45·6	20·6
15	Four „ „	7	50·9	25·9

In the same year, forty-six Kentish families earned from all sources, including gleanings, 2,107*l.* 1*s.* 10*d.*, or 45*l.* 16*s.* each; twenty Sussex families, 827*l.* 11*s.* 10*d.*, or 41*l.* 7*s.* 6*d.* each. Task work contributed 949*l.* 8*s.* 5*d.* and to the first, and 349*l.* 5*s.* 6*d.* to the second amount.*

The child's earnings are an important item to the father, when we find that in some districts the elder boys will earn as much as men in other places; and that even in the south (Westhampnett Union) it is stated "a lad between 14½ and 16 will often earn as much as a man." In the Depwade Union a scale of wages, apparently according to the age of the children, is thus returned:—

s.	d.		s.	d.	
1	6	per week	3	6	per week
2	0	"	4	0	"
2	6	"	5	0	"
3	0	"	6	0	"

* E. C. Tufnell's "Report on Kent and Sussex in 1837," (unpublished.)

Dr. Kay alluded in 1837 to the very high earnings of the children above ten years of age.

In Table XVIII (Appendix) the monthly earnings of a man, his wife, and boy, living near York in 1842, are set out:—

	Number of Days' Work.	Amount Earned.
		£ s. d.
Man	312	36 4 4
Wife	209½	8 8 10
Boy	222½	5 19 7
		50 12 9

More than one-fourth of this man's income was derived from the labour of his wife and child.

IV.—*Variation in Wages in Large and Small Areas.*

The general variations in 1860 are exhibited by arranging the divisions in two parallel columns, commencing the first with the highest paid, and the second with lowest paid district, and taking the average of the men's weekly wages for the six months as the exponent, thus:—

Divisions.	Highest. s. d.	Divisions.	Lowest. s. d.
Northern	14 1	South-Western	9 6
York	13 6	West Midland	10 0
North Midland	12 8½	South Midland	10 5½
North-Western	12 8	Welsh	11 2½
South-Eastern	11 9½	Eastern	11 6½

It would appear from these returns, that no commodity in this country presents so great a variation in price, at one time, as agricultural labour, taking the money wages of the men as the best exponent of its value. A labourer's wages in Dorset, or Devon, are barely half the sum given for similar services in the northern parts of England. This great difference is perhaps unparalleled by any other article of value, capable of as easy transfer from place to place, so far as bulk is concerned. It may not be possible to define the cause of this indisposition of the agricultural population to a change of residence in search of better remuneration. The natural *vis inertia* of the class, attachment to their native place, and above all, a well-founded dread of the miseries of a disputed poor law

settlement in the hour of their destitution, may co-operate to produce the result.

But considerable differences in wages obtain in small areas, and instances of these are afforded by the Returns. In the Samford Union (Suffolk) it is stated, that "in the parishes bordering upon the Orwell and Manningtree rivers the wages range 2*s.* a week higher than in the parishes on the western side of the union." With reference to the Stourbridge Union it is noted, that "in that part in which mining and manufacturing is carried on labourers' wages are highest, and are on the average 18*s.* per week. In the purely agricultural portion the weekly wages average not more than 10*s.*"

In the Burton-on-Trent Union it is stated, that the agricultural labourers have an especial advantage in the large numbers of men employed in the breweries during the winter, which tends to raise wages.

In Monmouthshire and Wales, the proximity to the "Iron Works" is frequently stated to be the cause of higher wages than those given in the remoter parishes. In Merthyr Tydfil wages had risen to 18*s.* 6*d.*, the average being 11*s.*, in consequence of the "opening of new collieries," in that Union.

In one of the Sussex Unions (Midhurst), where the ordinary rate of wages is 11*s.*, it is stated that when the labour is required near railroad works, or enclosures, the pay is 15*s.*

I have selected from the returns five unions which exhibit considerable variations. The respondents were not asked any questions upon this point, or doubtless more instances would have been furnished.

Unions.	Area in Square Miles.	Wages.		Difference per Cent.
		Lowest.	Highest.	
Samford.....	78½	<i>s.</i> <i>d.</i> 11 -	<i>s.</i> <i>d.</i> 13 -	18
Stourbridge	25	10 -	13 -	30
Newport (Mon.)	172	12 -	15 -	25
Carmarthen	270	9 -	12 -	33
Llanelly	115	10 -	15 -	50

Great depressions in the rate of wages in one place as compared with another, have been traced to the influence of a lax administration of the poor laws. In Table V (Appendix), the five most, and the five least pauperized divisions of the country, are brought into

comparison. The range of the men's weekly wages in the first section is 9s. 6d. to 11s. 9d., average 10s. 11d., the rate per head for relief 7s. 1½d.; but, in the second section where the range of wages is 10s. to 14s. 1d., average 12s. 2d., the rate per head is only 4s. 2d. The figures are more significant when a selection is made of smaller areas. In the next example five unions are taken from Wilts and Dorset, and five from Northumberland and Cumberland. In the Southern unions where the rate per head of relief is 8s. 2d., the wages averaged 9s. 6d., while in the northern ones, the rate per head being only 5s. 5d., the wages averaged 14s. 6d. The relief was 34 per cent. *lower*, and the wages 53 per cent. *higher* in the second as compared with the first group of unions.

Unions.	Population in 1861.	Relief to the Poor in 1860.	Rate per Head of Relief on Population.	Average of Men's Weekly Wages.*
<i>In Wilts and Dorset—</i>		£	s. d.	s. d.
Devizes, Alderbury, Wim- borne and Cranborne, Wareham and Parbeck, and Cerne	79,589	32,594	8 2	9 6
<i>In Northumberland and Cum- berland—</i>				
Berwick, Glendale, Brampton, Wigton, and Boothe	79,255	21,532	5 5	14 6

* The money wages alone have been taken for the purpose of comparison; no attempt has been made to estimate the value of the perquisites in the two districts.

There are of course many other circumstances, besides the mal-administration of relief, which influence the rate of wages; yet, the effect of the poor laws upon the labourers' remuneration is not to be ignored.

V.—*The Labourer's Expenditure—Food, Clothing, and Rent.*

The rate of wages alone, does not exhibit the economical condition of the labourer; we must further ascertain the command which those wages give him over the articles he consumes—in other words we require the cost of the food, clothing, and lodging which he, and his family, actually require and obtain. If we possessed labourers' accounts of their own disbursements at the present time, similar to those in the Appendix for past years (Tables VI to XIV), we should have all the elements for solving this interesting question; but in their absence we must seek for aid in other quarters.

First in importance to the labouring man's welfare, is the price

of wheat; this was 59s. 1d. for the Michaelmas quarter, and 56s. 9d. for the Christmas quarter of 1860.

The prices of the following articles of food are computed from the contracts in a metropolitan, a manufacturing, and an agricultural district; they are the average of those paid by the guardians of Lambeth, Birmingham, and Bury St. Edmunds, for the half-year ended at Michaelmas last (1860):—

	<i>s.</i>	<i>d.</i>		<i>s.</i>	<i>d.</i>
Bread, per 4 lbs.	—	4½	Butter, per lb.	—	11½
Flour, per 280 lbs.	39	4	Cheese „	—	6½
Potatoes, per ton	110	—	Tea „	3	2
Mutton and Beef, per stone of 14 lbs.	7	4	Sugar „	—	4½

It is obvious that the system of union contracts gives the guardians a considerable advantage in the market over the labourer, who will have to give 12 or 15 per cent. more at the village shop. In the absence of any recent accounts of labourers' disbursements, it appeared to me that the workhouse stores would afford an approximate illustration of the required prices.

In 1846 it was found that six families, on one farm in Wiltshire, consisting of thirty-seven persons, consumed thirty-three gallons of bread weekly; equal to about forty-six gallons for each yearly; which is equal to the flour produced from six bushels of wheat. At this rate the cost of bread during the *half-year* ended at Christmas last would be about 1l. 1s. 9d. per head.*

I have obtained from the counties of Kent, Norfolk, Devon, and Warwick, the shop-prices, actually paid by the labouring poor in those parts of the county, for ten different articles of food, &c., at the present time (Table XI, Appendix). This is the average:—

	<i>s.</i>	<i>d.</i>		<i>s.</i>	<i>d.</i>
Bread, per 4 lbs.	—	7½	Butter, per lb.	1	—½
Flour, per 7 lbs.	1	3½	Tea, per oz.	—	3
Bacon, per 1 lb.	—	9½	Sugar, per lb.	—	4½
Butcher's Meat, per 1 lb.	—	7½	Soap, per lb.	—	4½
Cheese, per 1 lb.	—	7½	Candles, per lb.	—	7½

The cost per head, per week, for food and clothing in three workhouses last year was for men, women, and children, as under:—

	Food.		Clothing.		Total.	
	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>
Strand Union	2	9½	—	4	3	1½
Birmingham	2	8½	—	3	2	11½
Bedford Union	3	0½	—	3½	3	4½

* "Twelfth Report of the Poor Law Commissioners, 1846," p. 125.

In the Appendix there is a statement (Table XVII) of the cost per head, for food and clothing, of the in-door paupers of all those unions from which the wages' returns have been received; and a computation of the expense of maintaining a family of six persons at the respective rates. At this average the latter would cost 18s. 9d. per week; the money wages of a man alone are 11s. 5½d., which is short of the expenditure by 7s. 8½d. But this leaves out of view the extra earnings by task and harvest work, and the assistance which a man, with a wife and four children, would receive from their labour.

The cost of clothing, and of clothing materials for three unions is set forth in detail in the Appendix (Tables XV, XVI). The average expense in a metropolitan, and in a rural union, was this:—

	£	s.	d.
A man's suit	2	10	8
A woman's suit	1	9	3
A boy's suit.....	1	3	0
A girl's suit.....	1	1	7

Now, since the weekly cost per head for clothing, in the two unions from which these figures are derived, is 3½d. only, we may infer that the average duration of a suit is 106 weeks. Here again the labourer will be at a disadvantage, in regard to the wear and tear of his garments, to say nothing of his more restricted market.

There are many interesting accounts of cottagers' expenditure, to be found in the published reports and papers relating to the relief of the poor, during the years 1837 to 1846. The most important of these I have tabulated and inserted in the Appendix; adding several which have never yet been published, (Tables VI, VII).

A good specimen is the following, which relates to three families in Kent, in 1835 and 1838, the former a low, and the latter a high priced year:*

Items.	November, 1835.		June, 1838.	
	s.	d.	s.	d.
5 gallons flour, at	6	8 equal 4 2	10	8 equal 6 8
3½ lbs. bacon „	—	6 „ 1 5	—	7½ „ 1 9½
1½ „ butter „	—	9½ „ 1 2½	—	11 „ 1 4½
1 lb. cheese „	—	7 „ — 7	—	7½ „ — 7½
1 „ sugar „	—	6½ „ — 6½	—	7 „ — 7
2½ oz. tea „	5	— „ — 8	5	— „ 1 8
½ lb. soap „	—	6 „ — 3	—	7 „ — 3½
½ „ candles „	—	6 „ — 3	—	7 „ — 3½
		9 — 4		12 3½

* "Twelfth Report of the Poor Law Commissioners," p. 129.

No potatoes appear to have been purchased; they were probably grown by the cottagers themselves. Altogether the dietary is a liberal one for the class.

The next, which is that a Suffolk labourer in 1843, whose earnings amounted, with the assistance of four members of his family, to 13s. 9d. per week, is not so satisfactory in its constituents.

	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>
Bread	9	-		
Potatoes	1	-		
Cheese	-	3		
Butter.....	-	4½		
Tea	-	2		
Sugar	-	3½		
Salt	-	½		
			11	1½
Soap	-	3		
Candles	-	3		
Blue	-	½		
Thread, &c.	-	2		
Coal and wood	-	9		
			1	5½
Rent			1	2
			13	9

Note.—"Report on the Employment of Women and Children in Agriculture, 1843," p. 233.

This family consisted of seven persons. It is worthy of note that of 11s. 1½d. spent in food, 10s. was expended in bread and potatoes.

The following statement was made by one of the witnesses examined by the Select Committee of 1837, to show that a single able-bodied man was enabled to live on 6s. per week; it provides a very full allowance of cheese and bacon, compared with actual dietaries of the same class.

	<i>d.</i>	<i>s.</i>	<i>d.</i>
14 lbs. Bread, at 1½ per lb.		equals	1 9
1½ „ Cheese „ 6½ „		„	- 10½
3 „ Bacon „ 7 „		„	1 9
7 pints Beer „ 1½ per pint		„	- 10½
Lodging and washing			- 9
			6 -

Note.—"Appendix to Second Report of Select Committee on the Poor Law Amendment Act," p. 58, House of Commons, No. 138, Sess. 1837.

To furnish the reader with a broader basis of facts, I have here summarised the quantities and cost of the weekly food of eight families in 1837, whose collective number was fifty-three, *i.e.*, sixteen adults and thirty-seven children. Two of the families resided in Kent, four in Sussex, one in Devonshire, and one in Cumberland.

		£	s.	d.
Flour.....	280 lbs.	2	5	6
Bread.....	58 „	—	8	8
Potatoes.....	—	—	1	9
Bacon.....	4½ „	—	2	10½
Meat.....	9 „	—	4	1
Butter.....	9½ „	—	9	2
Cheese.....	16 „	—	7	4
Tea.....	12½ oz.	—	3	7½
Sugar.....	8½ lbs.	—	4	7
Cider.....	—	—	2	0
		4	9	7

In this instance, the cost per head for food alone, was 1s. 8½d.

It is remarkable that, I have only found one instance where any expenditure for beer, or cider, enters into the ordinary disbursements of the labourer.

It will be useful in connexion with these accounts of 1837, to give the price of the principal articles of the labourers' consumption in a southern and a northern district, in that year:*

Articles.	Hants and Sussex.	Manchester.
	s. d.	s. d.
Bread, 4 lbs.	— 7	— 7
Flour, per lb.	— 1½	— 2
Potatoes, 56 lbs.....	1 2	1 3
Bacon and pork, per lb.....	— 7½	— 6
Beef and Mutton „	— 6	— 6
Cheese, per lb.	— 5½	—
Butter „	— 10½	1 —
Tea „	3 7	—
Sugar „	— 7	— 7

For the purpose of comparison with the preceding dietaries, the food contained in the dietaries of four agricultural unions, namely, Bedford, Eastry, Dunmow, and Louth, taking the mean quantity allowed weekly to each able-bodied in-door pauper, male and female, aged 9 and upwards, is here given; namely:—

	lbs. oz.		lbs. oz.
Bread	6 13½	Meat.....	— 9½
Flour	1 5½	Suet	— 3½
Oatmeal	— 12	Milk.....	— 15
Peas	— 1	Butter	— 1
Cheese	— 10½	Vegetables	— 2½
Potatoes	2 1½		

(Table IX Appendix).

* Abstracted from the unpublished Reports to the Poor Law Commissioners on the Rate of Wages, &c., in 1837.

The proportion of the labourers outlay in bread, as regulated by the price of the article and the size of his family, is exemplified in the subjoined table.

Year.	Number in Family.	Weekly Cost of		Total Expenditure.
		Flour or Bread.	All other Articles.	
		<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
1841	9	8 3	3 6½	11 9½
'41	8	10 6	6 7½	17 1½
'41	8	8 3	4 —	12 3
	25	27 0	14 2	41 2
1837	6	5 6½	7 8	13 2½
'37	2	2 2	3 7	5 9
'37	9	7 0	5 9	12 9
	17	14 8½	17 —	31 8½

Note.—E. C. Tufnell's Report on the Sanitary State of Kent and Sussex, "Local Reports," Sess. 1842.

In 1841, when wheat was at 64*s.* 4*d.*, the expenditure for bread and flour for three families of twenty-five persons was 27*s.*, or *two-thirds* of the total; but, in 1837, three families of seventeen persons spent less than *one-half* upon the same articles, wheat at that time being 55*s.* 10*d.*: but the families being larger in the dear than the cheap period, that circumstance must be taken into account.

A very complete statement of the yearly expenditure of a Yorkshire labourer's family, and of a Cornish family, will be found in the Appendix, Tables X, XII, and XIII). Each family consisted of a man and wife, and five children. The first account relates to 1841-2, and the second to 1845. The principal heads of expense are as follows:—

Articles.	Yorkshire Family.			Cornish Family.		
	<i>£</i>	<i>s.</i>	<i>d.</i>	<i>£</i>	<i>s.</i>	<i>d.</i>
Food	33	3	—½	16	15	3
Physic	—	1	3	—	—	—
Coals, candles, and soap....	3	10	5	2	9	10
Clothes	6	3	3½	8	5	7
Cooking utensils, &c.	—	6	3	—	—	—
Rent.....	4	—	—	4	14	—
Schooling and books	—	7	8	—	13	—
Clothing club	—	17	4	—	—	—
	48	9	3	32	17	8

It should be observed that the second family grew enough potatoes for themselves, and for a pig; and that the weight of the

latter when killed was generally 200 lbs., and "serves the family for "about seven months." The particulars of dress of this family (Table XIII) afford an instructive lesson of thrifty management in a cottager's household. The husband's cloth coat for Sundays cost 50s., but he had worn it for thirteen years. His wife's bonnet costs 2s. 6d., and it lasts for one year and a-half.

The cost of this family's clothing stands thus; divided among its members, namely:—

	£	s.	d.
Husband's clothes	2	7	1
Wife's "	1	11	8
Boy's (two, 10 and 7) clothes	2	3	4
Girl's (three, 12, 4, and 2) clothes	2	3	6
	8	5	7

Note.—"Twelfth Annual Report Poor Law Commissioners," p. 134.

The average expenditure per week of the two families for clothing was 2s. 9½d., or 4½d. per head. In Table XIV similar items are given in respect of two Devonshire families, whose average was 2s. 6½d.; or 2½d. per head, weekly.

With the purpose of completing the view of the labourer's expenditure, it will be necessary to give some information as to the rent he pays. I know no better record than a table in the Appendix to Mr. Edwin Chadwick's Sanitary Report of 1842, from which the following selection is made. The rent is an average in respect of those counties, where several sums are specified:—

	£	s.	d.		£	s.	d.
Norfolk	2	2	- a-year	Hereford	3	10	- a-year.
Suffolk	2	2	- "	South Wales	3	10	- "
Bucks	2	12	- "	Shropshire	3	13	6 "
Cumberland	2	19	- "	Worcester	3	13	6 "
Bedford	3	5	- "				

In one of the Dorset Unions, in Mr. Villier's Return, the rent of a cottage and good garden is stated to be, on the average, 1s. 6d. per week. The rent usually paid will range from 1s. to 2s. per week, taking the country throughout; the higher rent is charged where a good garden is included in the tenement.

VI.—*Influence of the Seasons on Earnings.*

Judging by the number of Paupers on the Relief Lists, February is the worst, and August the best month for agricultural employment. The *maximum* number of Paupers in the year is attained in the second week of the former, and the *minimum* in the fourth week of the latter month. This conclusion is drawn from an average, taken

for the four years ended with 1860, of the pauperism of the five most agrarian divisions of England. These figures may be fairly taken as representative of the usual change due to the seasons, in agricultural districts:—

	Number of Paupers. (In and Out-door.)
Maximum period	425,902
Minimum „	370,498

Here, then, 55,000 more paupers are on the Relief Lists, under ordinary circumstances, in February than in August.

This is borne out by the wages table of a large farm, in the county of Notts, the property of the Duke of Portland. It has reference to the year 1830 only, in the

	Paid for Labour.
First quarter	18·9 per cent.
Second „	22·1 „
Third „	38·6 „
Fourth „	20·4 „
	<hr/>
	100·0

Here the money payments for the Michaelmas quarter are more than double those made for the Lady-Day quarter (Table XIX).

VII.—*Labourers' Gross Income; Proportion it bears to Rent and Farmers' Profits.*

It will be convenient to consider in conclusion, whether any useful approximation can be formed to (1) the gross annual income of the Agricultural Labourers, (2) the proportion it bears to the Landowners' Rent and the Farmers' Profits, and (3) of the yearly cost per cultivated acre for Labour.

Mr. Villier's Return gives only the weekly rate of pay; now without knowing something of the Labourer's extra gains by task work and harvest wages, and of the assistance he derives from the work of his family, it is not possible to arrive at a very satisfactory conclusion as to the amount of his annual income. However, it fortunately happens that Mr. E. C. Tufnell, in his Report on Kent and Sussex in 1837, has stated, with great minuteness, the particulars of the income of sixty-six families in those counties. These families, the majority of them belonging to Kent, numbered in all 295 individuals. Their total earnings for the year, excluding gleanings and the value of the food, drink, or other perquisites made by the farmer to the actual workers, stood thus:—

	£	s.	d.
Weekly wages	1,208	11	9
Task work	1,298	13	11
Harvest wages	126	7	1
Wives' earnings	169	14	3
Children's earnings	123	-	8
	2,926	7	8

This gives an average of 44*l.* 6*s.* 9½*d.* per family; this average, or rather 44½*l.* is taken, in the absence of other data, to compute the total income of 1860; and it will be found that the average money wages per week of the men, in the two counties last year, represented the average of the country; and that, as regards Kent in 1837, they were the same as in 1860. The estimate is made in respect of those male labourers only who were 20 years of age and upwards, including 10,252 shepherds and 91,698 small farmers working on their own farms; these are all treated as heads of *families*. Then there are 87,608 in-door male farm servants, aged 20 and upwards, whose average wages and board will be equal to 80*l.* per annum. Of the females aged 20 years and upwards 34,862 are excluded, because it is presumed they belonged to the 826,789 families of the male group; but 47,450 adult female farm servants (not being domestic servants) are included at 16*l.* wages and cost of board. I do not think that this estimate can be considered excessive, for this among other reasons, that no attempt has been made in it to arrive at the expense of the food, drink, and perquisites allowed by the farmer, which in the aggregate must be of considerable amount. At all events, the data and the results are set forth for verification or amendment in the subjoined table:—

Agricultural Labourers in 1851.				Estimated Income for 1860.
[Farm bailiff 10,455]				£
Males, aged 20 and upwards—				
Agricultural labourers (out-door)	724,839			
Shepherds	10,252			
Small farmers working on their own farms	91,698			
Average income.....	£44 6 <i>s.</i> 8 <i>d.</i> ×	826,789	=	36,378,716
In-door farm servants—				
Average wages and board...	£30 - <i>s.</i> - <i>d.</i> ×	87,608	=	2,628,240
Females, aged 20 years and upwards—				
[Agricultural labourer (out-door)	34,862]			
Farm servant (in-door) not being a domestic servant—				
Average wages and board...	£16 - <i>s.</i> - <i>d.</i> ×	47,450	=	759,200
				39,766,156

The following estimate of the proportion which the aggregate labourer's yearly income severally bears to the landowner's rent, and the farmer's profits, can only be regarded as tentative; but it ought to be somewhat close to the truth, and if it be, then the proportion in a general way is capable of this simple expression, namely: *That the yearly income of the Labourers is equal to the yearly rental of the Landlords, and to twice the yearly profits of the Farmers.* The precise figures are these:—

Estimate of that portion of the Annual Product of the Land which was Divided between Landlords, Farmers, and Labourers in 1860.	Money Value.
	£
<i>Landlord's share</i> of the annual produce (farmer's rental } under Schedule B)	42,955,963
<i>Farmer's share</i> (assumed to be equal to half the rental under } Schedule B) after replacing his capital.....	21,477,981
<i>Labourer's share</i> (as per estimate in the previous table).....	39,766,156
Total	104,200,100

Note.—The Amount of Schedule B is taken from No. 592, Sess. 1860.

When the Property Tax was proposed to Parliament by Sir Robert Peel, he estimated the farmer's profit at half the rental, considering the former rating, upon two-thirds of it, to be excessive;* but to which proportion the truth is nearest, the returns afford no means of even conjecturing. The tithe rent-charge is included in Schedule B.

It follows from the last Table that the value per acre of the labour bestowed on the land is equal, very nearly, to the rental per acre. The exact figures are these, the calculation is made in respect of 24,905,758 cultivated acres:—

	s.	d.
Labour per acre*.....	32	9
Rent per acre	35	3

The number of claimants to the produce of the land are in fact *five*, for we must add the tithe-owner and tax-collector to the land-

* "Hansard," 1842, vol. lxi, p. 488.

† Some evidence was given before the Lords' Committee, 1830-31, upon the cost of yearly labour per acre. On a farm of 1,500 acres at Clipstone, Notts, the outlay for labour was, in 1830, 30s. 11½d.; at Balderton, a farm of 840 acres in 1829-30, 26s. 6d.; a farm of 1,000 acres, belonging to the late Duke of Newcastle, 1829-30-31, 22s.; this farm was of light sandy soil, and permanent pasture and meadow. In another farm of 900 acres, 24s. 5½d.; and in two farms of 610 acres together, 30s. per acre.

lord, farmer, and labourer. If we can find the amount of the tithe and of the taxes (imperial and local) falling upon the land, we shall be able to arrive at the money value of the total produce, exclusive of the portion which replaces the cultivators' capital. This is attempted in the next table:—

Shares.		Money Value.
	Mins. £	Mins. £
1. Landlords'	42·956	104·200
2. Farmers'	21·478	
3. Labourers'	39·766	
4. Tithe owners' (included in land- lords	—	—
5. Tax collectors'—		
Poor rates	4·496	7·637
Highway and other local rates	2·000	
Land tax	1·141	
		111·837

According to this *provisional* estimate, the annual value of the surface produce is a little under *one hundred and twelve millions*.

These estimates will require revision with the occupation statistics of 1861; and possibly with the agricultural statistics, which at length there appears to be some hope of obtaining for England.

The poor rates, alleviated as they have been since 1834, are still a considerable burthen on the land. With the view of finding the most exact pressure of this tax, I have taken the Poor Rate Returns of 1859-60, and from the total, deducted all that was raised as a rate and expended in relief in the metropolis and in ninety-five other unions, which had less than *one-tenth* of their adult population engaged in agriculture. It is assumed for the purpose of the calculation, that all the cultivated ground is within the remaining unions. This is nearer the truth than at first sight might appear; because, although a good deal of farm land is within the ninety-five unions deducted, yet a very large area, in those retained, will be covered with houses, paying rates, which to a certain extent balance the agricultural districts unavoidably eliminated.

The amount raised as poor rates in the 514 Agricultural Unions in 1859-60 was 4,496,033*l.*, which was equivalent to 8*s.* 7*3d.* per cultivated acre; the sum expended in relief was 3,382,801*l.* or 2*s.* 8*6d.*; hence the poor rates were equal to something more than *one-tenth*, and the sum spent in relief to more than *one-thirteenth* of the rental.

Since the publication of the English return, the House of Commons has ordered similar information to be laid before it in

respect of Ireland and Scotland, in the same form, and for the same period, as that we have just been discussing. If the facts are as fully given as in the original return, we shall be then in a position to institute some interesting comparisons with other parts of the United Kingdom.

APPENDIX.

(I).—Statement of so much of the Earnings of Agricultural Labourers in England and Wales, as consisted in the Weekly Money Wages to Men, Women, and Children, and the Task Work Payments to Men, during the Quarter ended Michaelmas, 1860.

Number of Unions Making Returns.	Division.	Weekly Wages.					
		Men.			Women.		
		Range.		Average.	Range.		Average.
—	i. The Metropolis ..	s. d.	s. d.	s. d. No	s. d.	s. d. returns.	s. d.
13	ii. South-Eastern	8 8	@ 15 6	11 11½	1 -	@ 8 -	4 7
9	iii. South Midland	10 -	„ 12 -	10 7½	3 6	„ 7 6	4 7
9	iv. Eastern	10 -	„ 16 10	12 1	3 6	„ 6 -	4 4
12	v. South Western	8 -	„ 12 -	9 6½	3 -	„ 5 -	3 9
16	vi. West Midland	9 -	„ 13 -	10 ½	2 6	„ 5 6	4 2
6	vii. North Midland	12 -	„ 15 -	13 1	4 -	„ 6 -	4 8
6	viii. North-Western	11 -	„ 18 -	13 3	4 -	„ 10 -	6 11
7	ix. York	13 6	„ 16 -	14 3½	4 -	„ 9 -	5 9½
10	x. Northern	12 -	„ 18 -	14 10	6 -	„ 10 -	10 6
14	xi. Welsh.....	8 6	„ 14 -	11 1	4 -	„ 6 -	5 1
102	England and Wales	8 -	„ 18 -	11 9	1 -	„ 10 -	5 -

Number of Unions Making Returns.	Divisions.	Weekly Wages.			Weekly Earnings at Task Work.		
		Children under 16 Years.			Men.		
		Range.		Average.	Range.		Average.
—	i. The Metropolis	s. d.	s. d.	s. d. No	s. d.	s. d. returns.	s. d.
13	ii. South-Eastern	2 6	@ 7 -	3 7	11 6	@ 25 -	16 3
9	iii. South Midland	2 6	„ 5 -	3 5	12 -	„ 15 -	13 7
9	iv. Eastern	1 6	„ 7 -	3 7	11 6	„ 23 -	15 3
12	v. South Western	2 -	„ 4 6	3 4	11 6	„ 22 6	13 8
16	vi. West Midland	2 -	„ 6 -	3 3	12 -	„ 17 6	14 4
6	vii. North Midland	2 -	„ 7 -	3 2	18 -	„ 28 6	22 -
6	viii. North-Western	3 -	„ 8 -	4 9½	15 -	„ 21 -	18 -
7	ix. York	3 -	„ 6 -	3 7	15 -	„ 18 -	16 10
10	x. Northern	3 -	„ 8 -	5 9½	17 6	„ 25 -	19 7
14	xi. Welsh.....	1 6	„ 9 -	3 9	13 -	„ 21 -	15 10
102	England and Wales	1 6	„ 9 -	3 9	11 6	„ 28 6	15 10

Note.—Abstracted from Mr. Villier's Return, No. 14, Sess. 1861.

(II).—Statement of so much of the Money Earnings of Agricultural Labourers in England and Wales as consisted in the Weekly Money Wages to Men, Women, and Children, and the Task Work Payments to Men, during the Quarter ended Christmas, 1860.

Number of Unions Making Returns.	Divisions.	Weekly Wages.					
		Men.			Women.		
		Range.		Average.	Range.		Average.
		s. d.	s. d.	s. d. No	s. d. returns.	s. d.	s. d.
—	i. The Metropolis						
13	ii. South-Eastern	9 - @	13 6	11 6	1 8 @	7 6	4 6
9	iii. South Midland	9 6 „	11 -	10 4	1 - „	4 6	2 8
9	iv. Eastern	10 - „	13 -	11 -	2 - „	5 -	3 11
12	v. South Western	9 - „	10 6	9 5½	3 - „	7 -	4 -
16	vi. West Midland	9 - „	12 -	9 11½	1 - „	5 -	3 11
6	vii. North Midland	11 - „	15 -	12 4½	3 - „	7 -	5 -
6	viii. North-Western	11 - „	14 -	12 -	4 9 „	9 -	6 4
7	ix. York	12 - „	15 -	12 8	3 - „	7 6	4 7
10	x. Northern	9 - „	15 -	13 4	3 4 „	7 6	5 3
14	xi. Welsh.....	9 - „	15 -	11 4	2 6 „	6 -	4 8
102	England and Wales	9 - „	15 -	11 2	1 - „	9 -	4 4½

Number of Unions Making Returns.	Divisions.	Weekly Wages.			Weekly Earnings at Task Work.		
		Children under 16 Years.			Men.		
		Range.		Average.	Range.		Average.
		s. d.	s. d.	s. d. No	s. d. returns.	s. d.	s. d.
—	i. The Metropolis						
13	ii. South-Eastern	2 - @	5 -	3 8	11 6 @	15 -	14 1½
9	iii. South Midland	- 6 „	5 6	3 2½	11 - „	18 -	13 1
9	iv. Eastern	2 10 „	5 -	3 9	11 6 „	15 -	13 3
12	v. South Western	2 - „	3 3	2 9½	11 - „	13 -	11 9
16	vi. West Midland	2 6 „	4 3	3 5	12 - „	16 -	13 4½
6	vii. North Midland	2 - „	5 -	3 8	15 6 „	16 -	15 10
6	viii. North-Western	2 - „	5 -	3 7	14 - „	15 -	14 8
7	ix. York	2 - „	4 -	2 11	12 6 „	18 -	15 1½
10	x. Northern	2 8 „	4 6	3 9	14 - „	18 -	16 1½
14	xi. Welsh.....	1 6 „	7 -	3 8½	13 - „	16 6	14 5
102	England and Wales	- 6 „	7 -	3 5½	11 - „	18 -	13 9

Note.—Abstracted from Mr. Villier's Return, No. 14, Sess. 1861.

(III.)—*Statement of the WEEKLY WAGES of AGRICULTURAL LABOURERS, and of the Number of PINTS of WHEAT purchaseable with those Wages, from 1742 to 1829.*

Periods.	Weekly Wages.	Wheat per Quarter.	Wages as Measured in Pints of Wheat.
	<i>s. d.</i>	<i>s. d.</i>	Winchester Measure.
1742 @ 1752.....	6 —	30 —	102
1761 „ 1770.....	7 6	42 6	90
1780 „ 1790.....	8 —	51 2	80
1795 „ 1799.....	9 —	70 8	65
1800 „ 1808.....	11 —	86 8	60
1820 „ 1824.....	11 —	57 2	101
'25 „ '29.....	11 —	62 1	93

Note.—Abstracted from the Rev. John Thomas Becher's evidence given before a Committee of the House of Lords on the Poor Laws, in 1830-31, p. 262.

(IV.)—*Statement of the Average WEEKLY MONEY WAGES of AGRICULTURAL LABOURERS in 1824, 1837, and 1860.*

Divisions and Union-Counties (except the Metropolis).	Percentage of Persons Aged 20 and upwards, occupied in Agriculture, (1861).	Weekly Wages of Men.			Difference per Week in 1860 as compared with			
		1824.	1837.	1860.	1824.		1837.	
					More.	Less.	More.	Less.
2. S.-EASTERN.	Per cent.	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Surrey (part of)	21·1	10 8	10 6	12 9	2 1	—	2 3	—
Kent (part of).....	19·9	11 9	12 —	12 —	— 3	—	—	—
Sussex	22·6	9 7	10 7	11 8	2 1	—	1 1	—
Southampton	17·4	8 6	9 6	12 —	3 4	—	2 6	—
Berks	26·7	8 9	—	10 8	2 1	—	—	—
3. S.-MIDLAND.								
Middlesex (part of)	15·1		No	returns				
Hertford	25·9	9 —	9 6	10 —	1 —	—	— 6	—
Buckingham	26·6	8 4	9 6	—	—	—	—	—
Oxford.....	26·7	8 1	8 6‡	—	—	—	—	—
Northampton	24·3	8 1	9 —	11 —	2 11	—	2 —	—
Huntingdon.....	30·8	7 6	9 6‡	10 9	3 3	—	1 3	—
Bedford	26·9	8 7	9 6	10 3	1 8	—	— 9	—
Cambridge	29·7	9 0	9 6‡	10 —	1 —	—	— 6	—

Note.—The figures for 1824 have been deduced from some tabulated results published in the House of Commons Paper, No. 292, Sess. 1825; those for 1837 from Reports made by the Assistant Poor Law Commissioners in that year, but not hitherto published; and the data for 1860 from the House of Commons Paper, No. 14, Sess. 1861. The figures marked ‡ are supplied from Mr. J. Fletcher's Paper in the *Statistical Journal*, vol. vi.

(IV.)—WEEKLY MONEY WAGES of AGRICULTURAL LABOURERS—*Contd.*

Divisions and Union-Counties (except the Metropolis).	Percentage of Persons Aged 20 and upwards, occupied in Agriculture (1861).	Weekly Wages of Men.			Difference per Week in 1860 as compared with			
		1824.	1837.	1860.	1824.		1837.	
					More.	Less.	More.	Less.
4. EASTERN.	Per cent.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Essex	26.9	9 4	10 4	11 3	1 11	—	— 9	—
Suffolk	28.6	8 3	10 4	10 7	2 4	—	— 3	—
Norfolk	24.7	9 1	10 4	10 7	1 9	—	— 3	—
5. S.-WESTERN.								
Wilts	30.1	7 7	8 —	9 6	1 11	—	1 6	—
Dorset	25.1	6 11	7 6	9 4	2 5	—	1 10	—
Devon	22.2	7 6	8 —	9 2	1 8	—	1 2	—
Cornwall	20.3	8 3	—	10 6	2 3	—	—	—
Somerset	22.6	8 2	8 8	10 —	1 10	—	1 4	—
6. W. MIDLAND.								
Gloucester	15.5	9 8	9 —	9 5	— 2	—	— 5	—
Hereford	33.2	7 1	8 —	9 —	1 11	—	1 —	—
Salop	25.9	8 10	9 —	10 —	1 2	—	1 —	—
Stafford	11.1	10 8	12 —	12 6	1 10	—	— 6	—
Worcester	16.1	8 2	9 6	10 —	1 10	—	— 6	—
Warwick	11.3	8 10	10 —	10 9	1 11	—	— 9	—
7. N. MIDLAND.								
Leicester	17.9	9 10	10 —†	13 6	3 8	—	3 6	—
Rutland	30.8	—	No	returns	—	—	—	—
Lincoln	30.6	10 2	12 —	13 —	2 10	—	1 —	—
Nottingham	16.7	10 3	12 —	12 9	2 6	—	— 9	—
Derby	16.7	10 10	12 —	12 —	1 2	—	— —	—
8. N.-WESTERN.								
Chester	16.0	10 8	13 —	11 8	1 —	—	—	1 4
Lancaster	6.7	12 1	—	13 7	1 6	—	—	—
9. YORK.								
West Riding	10.8	12 6	12 —	13 6	1 —	—	1 6	—
East „	18.5	11 8	12 —	13 6	1 10	—	1 6	—
North „	31.8	10 3	12 —	13 6	3 3	—	1 6	—
10. NORTHERN.								
Durham	9.6	11 6	12 —	14 3	2 9	—	2 3	—
Northumberland	15.0	11 5	12 —	14 —	2 7	—	2 —	—
Cumberland	25.6	12 3	12 —	15 —	2 9	—	3 —	—
Westmoreland	33.5	12 —	12 —	14 3	2 3	—	2 3	—
11. WELSH.								
Monmouth	14.9	10 1	10 6	11 8	1 7	—	1 2	—
Wales	27.6	8 —	7 6	11 2	3 2	—	3 8	—

Note.—The figures for 1824 have been deduced from some tabulated results published in the House of Commons Paper, No. 292, Sess. 1825; those for 1837 from Reports made by the Assistant Poor Law Commissioners in that year, but not hitherto published; and the data for 1860 from the House of Commons Paper, No. 14, Sess. 1861. The figures marked † are supplied from Mr. J. Fletcher's Paper in the *Statistical Journal*, vol. vi.

(V.)—WAGES and POOR RATES in 1860; Five of the Most Pauperized Divisions compared with Five of the Least Pauperized Divisions of England and Wales.

Divisions.	Estimated Population, 1860.	Relief to the Poor, Year ended Lady-day, 1860.	Number of Paupers Relieved on 1st Jan., 1860.	Rate per Head of Relief on Population.	Rate per Cent. of Paupers on Population.*	Average Weekly Wages of Agricultural Labourers (Men).
MOST PAUPERIZED.	Mins.	£		s. d.	Pr. cent.	s. d.
IV. Eastern	1·176	467,847	77,757	7 11 '2	6·58	11 6
II. South-Eastern....	1·763	680,247	96,626	7 8 '6	5·57	11 9
III. South Midland...	1·315	505,801	78,933	7 8 '3	6·01	10 6
V. South-Western..	1·852	594,030	104,475	6 5 '0	5·66	9 6
XI. Welsh	1·297	387,045	74,163	5 11 '6	5·74	11 3
	7·403	2,634,970	431,954	7 1 '4	5·86	10 11
LEAST PAUPERIZED.						
VII. North Midland....	1·311	333,231	50,572	5 1 '0	3·84	12 9
VI. West Midland....	2·337	547,980	91,792	4 8 '3	3·91	10 -
X. Northern	1·104	238,104	42,618	4 3 '8	3·83	14 1
IX. York	1·977	387,066	56,372	3 11 '0	3·16	13 6
VIII. North-Western..	2·926	517,190	83,307	3 6 '4	2·85	12 8
	9·655	2,023,571	324,661	4 2 '3	3·42	12 2

* The population upon which this ratio is computed, differs slightly from that stated in the first column, in consequence of a few parishes in each division making no return of the number of paupers whom they relieve.

(VI).—*The Average WEEKLY EXPENDITURE for Food, Soap, and Candles, of the Families of Ten Agricultural Labourers.*

Articles of Consumption.	Weekly Average Expenditure in																				
	1835. (Kent.)				1835. (Kent.)				1837. (Kent.)				1837. (Kent.)				1837. (Sussex.)				
	lbs.	oz.	s.	d.	lbs.	oz.	s.	d.	lbs.	oz.	s.	d.	lbs.	oz.	s.	d.	lbs.	oz.	s.	d.	
Flour	35	—	4	2	42	—	4	6	35	—	5	6½	—	—	—	—	42	—	7	—	
Bread	—	—	—	—	—	—	—	—	—	—	—	—	16	—	2	2	—	—	—	—	
Potatoes	—	—	—	—	28	—	—	6	—	—	—	—	—	—	—	—	—	—	—	—	
Bacon	3	8	„	1	5	4	—	„	1	6	—	—	1	—	—	7	2	5	„	1	5½
Meat	—	—	—	—	—	—	—	—	4	—	—	2	—	—	—	—	—	—	—	—	
Butter	1	5	„	1	2½	1	—	—	10	2	—	„	1	8	1	—	2	5	„	2	6
Cheese	1	—	—	6½	2	—	—	1	—	3	—	—	1	6	—	—	—	—	—	—	
Sugar	1	—	—	6½	1	—	—	6	1	5	„	10½	1	—	—	7	1	5	„	0	9
Tea	—	2	„	8	—	5	„	2½	—	2	„	7½	—	2	„	6	1	5	„	0	6
Coffee	—	—	—	—	—	2	„	3	—	—	—	—	—	—	—	—	—	—	—	—	
Soap	—	8	„	3	—	4	„	1½	—	8	„	3	—	—	—	—	—	8	„	0	3
Candles	—	8	„	3	—	4	„	1½	—	8	„	3½	—	—	—	—	—	8	„	0	3½
Salt, &c.	—	—	—	—	—	—	—	1	—	—	—	2	—	—	—	—	—	—	—	—	
Milk	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total cost	9 4				9 7½				12 10½				4 10				12 9				
Average Price of wheat	39 4				39 4				55 10				55 10				55 10				
Number in family—	a	2			a	2			a	2			a	2			a	2			
a adults	c	4			c	4			c	4			(old people)	c	7			c	7		
c children	6				6				6								9				

Articles of Consumption.	Weekly Average Expenditure in																			
	1838. (Kent.)				1840. (Kent.)				1841. (Sussex.)				1841. (Kent.)				1842. (Suffolk.)			
Flour	35	oz.	s.	d.	—	—	—	—	42	oz.	s.	d.	35	oz.	s.	d.	—	—	—	—
Bread	—	—	—	—	49	—	—	1	9	—	—	—	—	—	—	—	9	—	—	—
Potatoes	—	—	—	—	—	—	—	—	—	—	—	—	21	—	—	7	1	—	—	—
Bacon	3	8	„	1	3	5	„	1	9	—	—	—	—	—	—	—	—	—	—	—
Meat	—	—	—	—	—	—	—	—	—	1	5	„	9	—	—	—	—	—	—	—
Butter	1	5	„	1	—	—	—	—	1	—	—	1	—	3	—	—	—	4	—	—
Cheese	1	—	—	7	—	—	—	—	1	—	—	1	—	2	—	—	—	3	—	—
Sugar	1	—	—	7	—	—	—	—	—	4	„	2	1	—	—	7	—	3	—	—
Tea	—	2	„	8	—	—	—	—	—	—	—	—	—	2	„	7	—	2	—	—
Coffee	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Soap	—	8	„	3	—	—	—	—	—	8	„	3	—	—	—	—	—	3	—	—
Candles	—	8	„	3	—	—	—	—	—	12	„	4	—	—	—	—	—	3	—	—
Salt, &c.	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—
Milk	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	—	—	—	—
Total cost	12 3				10 6				11 6				17 1				11 8			
Average price of wheat	64 7				66 4				64 4				64 4				57 3			
Number in family—	a	.....	2		a	.....	2		a	.....	2		a	.....	2		a	.....	2	
a adults	c	.....	4		c	.....	5		c	.....	7		c	.....	8		c	.....	5	
c children			6				7				9				8				7	

(VII.)—*The Average WEEKLY EXPENDITURE for Food, Firing, Clothing, and Rent of the Families of Four Labourers; abstracted from unpublished Reports made to the Poor Law Commissioners in 1837. Similar particulars in regard to Food and Rent of Three Sussex Families in the same year.*

Articles of Consumption.	1837. (Devon)	1837. (Devon)	1837. (Devon.)	1837. (Cumberland.)
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Barley	3 pks. = 2 7½	4 pks. = 3 6	—	—
Flour	—	—	—	28 lbs. = 3 10
Bread	—	—	2 pks. = 5 —	— 1 6
Potatoes	—	—	½ bag „ 1 6	21 lbs. „ — 3
Bacon	—	—	—	2 „ „ — 10
Meat	2 lbs. „ 1 —	2 lbs. „ 1 —	3 lbs. „ 1 3	2 „ „ — 10
Butter	1 lb. „ — 9	½ lb. „ — 2½	1 lb. „ 1 1	— —
Cheese	—	—	7 lbs. „ 2 4	— —
Tea	—	—	2 ozs. „ — 6	— —
Sugar	—	—	½ lb. „ — 3½	— —
Milk	— 7	—	—	— —
Candles	½ lb. „ — 1½	½ lb. „ — 3	½ lb. „ — 3	— —
Rent	— 1 —	— 1 —	— 1 —	— 1 —
Clothes, &c.	— 2 6	— 2 8	— 3 —	— 1 6
Firing	— — 6	— — 6	— 1 6	— 1 —
Keep of pig	— —	— — 9	— —	— —
Soap	— —	— —	½ lb. „ — 3	— —
Cider	— —	— —	— 2 —	— —
Total cost ...	9 1	10 —½	19 11½	10 9
Average price of wheat....	55 10	55 10	55 10	55 10
Number in family—	<i>a</i> 2	<i>a</i> 2	<i>a</i> 2	<i>a</i> 2
<i>a</i> adults....	<i>c</i> 5	<i>c</i> 5	<i>c</i> 4	<i>c</i> 4
<i>c</i> children	7	7	6	6

Articles of Consumption.	1837. (Sussex.)	1837. (Sussex.)	1837. (Sussex.)
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Flour	56 lbs. = 9 4	56 lbs. = 9 4	63 lbs. = 10 6
Cheese	2 „ „ 1 2	2 „ „ 1 2	2 „ „ 1 2
Butter	1 „ „ — 11	1 „ „ 1 —	1 „ „ 1 —
Tea	2 oz. „ — 8	1 oz. „ — 3	2 oz. „ — 7
Sugar	2 lbs. „ 1 —	1 lb. „ — 6	1 lb. „ — 7
Rent	not stated	1 week 1 8	1 week 1 7
Total	13 1	13 11	15 5
Average price of wheat	55 10	55 10	55 10
Number in family—	<i>a</i> 2	<i>a</i> 2	<i>a</i> 2
<i>a</i> adults	<i>c</i> 6	<i>c</i> 6	<i>c</i> 6
<i>c</i> children	8	8	8

“Second Report of Select Committee on the Poor Law Amendment Act,” p. 88 *et seq.*, House of Commons, No. 138, Sess. 1837 (Sussex).

Note.—The families referred to in the two first columns (Devon) kept a pig each, which supplied them with pork, and they grew their own potatoes.

(VIII).—*Statement of the Weekly Expenditure for Food, Clothing, Rent, and Firing, of Fifty Agricultural Labourers' Families in 1838.*

Forty-seven Families in Lincoln and Leicester.			Three Families in Cambridgeshire.		
Articles of Consumption, &c.	Total Cost.	22 families kill a pig each.	Articles of Consumption, &c.	Total Cost.	2 families kill a pig each.
	£ s. d.			£ s. d.	
1,849 lbs. of flour,*	14 17 2		117 lbs. of flour*.....	— 18 10	
2s. 3d. per stone			3½ lbs. of bacon and	— 1 9	
175½ lbs. of bacon and meat, 6d. per lb.	4 7 9		Groceries	—	
Groceries	— 17 5		Clothes	— 2 3	
Clothes	1 2 11		Firing	— 3 3	
Firing	2 3 7½		Rent	— 2 6	
Rent	1 14 10½		Sundries	— — 10½	
Sundries	— 6 9		Total	1 9 5½	
Total	25 10 6½		Average price of wheat	64 7	
Average price of wheat	64 7		Aggregate number	6 adults, and 9 children.	
Aggregate number of the families....	91 adults, and 191 children.				

* 14 lbs. of flour equal to 16 lbs. of bread.

Note.—Abstracted from House of Commons Paper, No. 694, Sess. 1838.

(IX).—*Description and Quantity of Food allowed Weekly to the Able-bodied In-door Paupers, aged Nine Years and upwards, in the Four Agricultural Unions named.*

Description of Food.	Easry.		Bedford.		Dunmow.		Louth.	
	Men.	Women, and Boys and Girls from 9 to 16.	Men.	Women, and Boys and Girls from 9 to 16.	Men.	Women, and Boys and Girls from 9 to 16.	Men.	Women, and Boys and Girls from 9 to 16.
	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.
Bread	7 —	6 2	6 9	5 11	9 4	7 —	6 3	5 3
Meat pudding	1 —	— 10	2 —	1 4	1 —	— 10	—	—
Beef	—	—	—	—	—	—	— 15	— 15
Suet pudding	2 —	1 4	2 —	1 4	2 —	1 4	1 8	1 4
Peas pudding	—	—	*	*	—	—	—	—
Potatoes or other vegetables	3 —	1 14	3 —	3 0	3 —	3 —	5 4	4 12
Butter	— 7	— 7	*	*	—	— 3½	—	—
Cheese	— 4	— 4	— 10	— 10	— 11	— 4	— 6	— 6
Porridge	pints	—	10½	10½	7	7	—	—
Pea soup	—	—	*	*	—	—	3	3
Milk	—	—	—	—	—	—	—	2½
Broth	—	—	—	—	—	—	4½	4½
Gruel	—	—	—	—	—	—	10½	10½
Onions	—	—	three	three	—	—	—	—

* In the Bedford dietary these articles are alternative, in this quantity and mode, viz., 1 lb. of peas pudding instead of 1½ lbs. of vegetables; 3 pints of pea soup instead of 2 oz. of cheese; and 3½ oz. of butter in lieu of 7 oz. of cheese, in respect of each pauper.

In the Louth dietary the 2½ pints of milk are allowed to the children only.

(X.)—Statement of the YEARLY EXPENDITURE for Food, Clothing, Rent, &c., of an Agricultural Labourer's Family residing at Bolton Percy, near York, in the Year ended 28th February, 1842. The Family consisted of a Man, his Wife, and Five Children.

Articles of Consumption.	Cost.	Total Expenditure.
	£ s. d.	£ s. d.
1,095½ lbs. of flour.....	20 1 1	
Oatmeal	- 7 11½	
Yeast	- 11 4	
Meat	4 17 9	
Potatoes	- 16 7	
Butter	1 1 7½	
Cheese.....	- - 3	
Bacon	- 6 8	
Eggs	- 2 -	
Milk.....	- 18 -	
Rice	- 1 1	
Tea	- 17 4½	
Coffee	- 14 -	
Sugar	1 18 6	
Treacle.....	- 2 9	
Fruit	- 4 5	
Salt and pepper	- 1 8	
		33 3 -½
Physic	—	- 1 3
Coals'	1 18 2	
Candles	- 14 4	
Soap.....	- 17 2	
Sand.....	- - 9	
		3 10 5
Clothes.....	2 9 -½	
Shoes and leather	2 10 -½	
Hat	- 7 -	
Caps.....	- 2 5	
Worsted (for knitting)	- 5 -½	
Calico	- 9 5½	
Tape.....	- - 3½	
		6 3 3½
Cooking utensils.....	- 2 -	
Comb and brushes	- 3 4	
Cord	- - 8	
Linseed	- - 3	
		- 6 3
Rent	—	4 - -
Boy's schooling	- 6 -	
Prayer-book.....	- 1 2	
Paper	- - 6	
		- 7 8
Clothing club, 4d. per week	—	- 17 4
		48 9 3

Note.—Compiled from detailed accounts given at pp. 302—306 of "Report upon the Employment of Women and Children in Agriculture, 1843."

(XI.)—SHOP PRICES, in 1861, of the principal Articles of Food, &c., purchased by the Labouring Population in Four Counties. This information is in respect of the Shops at which the Poor actually dealt.

Articles of Food, &c.	Kent.	Norfolk.	Devon.	Warwick.
	s. d.	s. d.	s. d.	s. d.
Bread per 4 lbs.....	— 8	— 7	— 7½	— 7
Flour per gallon (7 lbs.)	1 4	1 2	1 5½	1 2
Oatmeal per lb.....	—	— 2	— 4	— 2½
Bacon „	— 8	— 10	— 9½	— 10
Pork „	— 8	— 7½	— 7½	— 8
Butcher's meat per lb.	— 8	— 7½	— 7½	— 8
Cheese „	— 7	— 8	— 5	— 9
Salt butter „	— 11	1 —	1 —	1 2
Tea per oz.	— 2½	— 3	— 3	— 3½
Sugar per lb.	— 4½	— 4½	— 5	— 5
Soap „	— 4½	— 3½	— 4½	— 5
Candles „	— 7	— 7½	— 8	— 7½

(XII.)—Statement of the Items of ONE YEAR'S EXPENDITURE of a Cottager's Family in the parish of Tywardreath, Cornwall. The Family consisting of a Husbandman, his Wife, and Five Children—a Girl 12, a Boy 10, a Boy 7, a Girl 4, and another 2 Years old.

Outgoings.	Total Expenditure.	Remarks.
£ s. d.	£ s. d.	
House rent and rates	4 14 —	
Pig, cost of	—	Fed on potatoes
6 gallons of barley for fattening....	— 13 6	reared by cottager.
Rent, 50 yards of potato-ground	2 10 —	Produces 75 bushels,
Wheat, 18 bushels at 8s.	7 4 —	which is enough for
Barley, 18 „ at 3s. 6d.....	3 3 —	the family, the pig,
		for seed for the next
Meat, 12 lbs. per month for 5 }	1 8 9	years' crop.
months, at 5½d.		The pig generally
Pilchards 700, and salt	— 10 —	weighs 200lbs., and
Other fish, cooked fresh	— 5 —	serves the family for
		about 7 months.
Tea, 1½ lbs. at 6s.	— 9 —	
Butter, 12 lbs. at 1s.	— 12 —	
Coals, 1½ tons at 20s. 6d.	1 5 7	
Candles, 24 lbs. at 7d.	— 14 —	
Soap, 18 lbs. at 6½d.	— 10 3	
Clothing—	23 19 1	
Husband's	2 7 1	
Wife's	1 11 8	
Boys' (two).....	2 3 4	
Girls' (three)	2 3 6	
	8 5 7	
Schooling of 2 children at 1½d. }	— 13 —	
per week each		
Total outgoings per annum	32 17 8	

Note.—Extracted from Mr. E. C. Tufnell's Report to the Poor Law Commissioners in 1846. "Twelfth Annual Report," p. 134 *et seq.*

(XIII).—Particulars of ONE YEAR'S EXPENDITURE for Clothing for the same Cornish Family.

Articles of Dress.	Cost.	Total.
	s. d.	£ s. d.
<i>Husband's Clothes—</i>		
Cloth coat, for Sunday, cost 50s., had it for } 13 years	3 6	
Fustian coat, lasts 6 years, 19s.	3 2	
Holland duck trousers	4 6	
" " frock, lasts 2 years, costs 4s.	2 -	
Fustian waistcoat, lasts 4 years, 4s. 8d.	1 2	
Serge drawers	1 6	
Two cotton shirts, 2 a-year, 2s. 6d.	5 -	
Flannel shirts, 2 a-year, 2s. 6d.	5 -	
Neckerchief	- 6	
Best hat, lasts 4 years, 5s.	1 3	
Painted covered straw hat, 2s. 8d., last 2 years ...	1 4	
Worsted stockings, 2 pairs at 1s. 4d.	2 8	
High shoes, 1 pair	11 -	
Low shoes, 2 pairs at 4s. 6d., last 2 years	4 6	
		2 7 1
<i>Wife's Clothes—</i>		
Two calico under garments 2s. 6d., and 1 serge } ditto 2s. 11d.	5 5	
Cotton gown	6 5	
Two cotton aprons	2 8	
Worsted stockings, 2 pairs 1s. 2d.	2 4	
Two day caps of muslin, 6d.	1 -	
Two night caps, calico ends, $\frac{1}{2}$ yard	- 2	
Two neckerchiefs, 2 a-year, 6d.	1 0	
Straw bonnet, 2s. 6d., lasts 1 $\frac{1}{2}$ year	1 8	
Shoes, 2 pair, 5s. 6d.	11 -	
		1 11 8
<i>Two Boys' Clothes—</i>		
Fustian jacket, one a-piece, 7s.	14 -	
Corduroy trousers, a pair each, 2s. 6d.	5 -	
Two shirts each, at 8d.	2 8	
Worsted stockings, 2 pair each, 8d.	2 8	
Hat or cap, one each, 1s. 6d.	3 -	
Shoes, 2 pairs each, 4s.	16 -	
		2 3 4
<i>Three Girls' Clothes—</i>		
Two calico shifts, each at 8d.	4 -	
Next garment, serge, 1s. 7d.	4 9	
Cotton frock, one each, 2s. 2d.	6 6	
Two savcells each, 8d.	4 -	
A bonnet of long cloth, 9d. each	2 3	
Worsted stockings, 2 pairs each, 8d.	4 -	
Two pairs of shoes each, 3s.	18 -	
		2 3 6
		8 5 7

(XIV.)—YEARLY EXPENDITURE for Clothing, &c., of the Families of Two Agricultural Labourers residing in Devonshire in 1837.

Articles of Clothing.	Cost for Family of 2 Adults and 5 Children.				Articles of Clothing.	Cost for Family of 2 Adults and 4 Children.			
	s.	d.	£	s. d.		s.	d.	£	s. d.
Man's—					Man's—				
Jacket (lasts 2 yrs.)	18	—	—	9 —	Coat and Waistcoat	—	—	8 —	—
Trousers do.	9	—	—	4 6	Trousers	—	—	10 —	—
Shoes, 1 pair	—	—	—	7 6	Shoes (high)	—	—	10 7	—
Shirts, 2	3	6	—	7 —	Shirts	4	—	8 —	—
Hat (lasts 2 years)	3	—	—	1 6	Hat	—	—	6 6	—
Stockings, 2 pairs	2	6	—	5 —	Stockings, 2 pair....	2	6	—	5 —
Handkerchief, &c.	—	—	—	1 —	Handkerchief	—	—	1 —	—
				1 15 6				2 9 1	
Woman's—					Woman's—				
Gown	—	—	—	5 —	}	—	2	—	—
Petticoats, &c.....	—	—	—	4 6					
Bonnet	—	—	—	3 —					
Shoes	—	—	—	5 —					
Stockings	—	—	—	4 6					
				1 2 0					
Boy's—					Child's—				
Complete suit	—	—	—	15 —	Suit and hat	—	—	17 —	—
Shoes	—	—	—	5 —	Shoes	—	—	8 —	—
Girl's—					Younger Children—				
Complete suit	—	—	—	1 —	Three	10	—	1 10	—
Younger Children—									
Each	15	—	—	1 5 —					
				3 5 —				2 15	—
Total cost of clothes	—	—	—	6 2 6	Total cost of clothes	—	—	7 4 1	
Cost of bedding and furniture	—	—	—	1 1 0	Bedding, &c.....	—	—	not stated	
				7 3 6				—	
Weekly cost (clothes only)	about	—	—	2 4½	Weekly cost (clothing only)....	—	—	2 6	

Note.—Abstracted from the unpublished "Report on the Rate of Wages in Devonshire in 1837."

(XV.)—Statement of the Prices of Articles of Clothing supplied for the use of the In-door Paupers of St. Martin-in-the-Fields Parish, and of the Bedford Union, in the Year 1860.

A Man's Suit.	Cost of in		A Boy's Suit.	Cost of in	
	St. Martin-in-the-Fields.	Bedford Union.		St. Martin-in-the-Fields.	Bedford Union.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
Coat for Sunday	—	1 4 —	Blouse (drabbett)	—	— 4 —
Coat	— 11 10	— 7 6	Jacket	— 5 2	— 12 6
Waistcoat for Sunday	—	— 6 —	Waistcoat	— 2 3	
Waistcoat	— 3 7	— 4 3	Trousers	— 5 10	
Trousers	— 6 6	— 7 6	Child's skeleton suit	—	— 8 6
Shirt	— 2 6	— 2 6	Boots	— 5 —	— 5 3
Flannel shirt	— 2 5	—	Shirt	— 1 8	— 1 9
Stockings	— 1 1	— 1 6	Stockings	— 6	— 1 1
Shoes	— 5 6	— 8 —	Handkerchief	— 4	—
Handkerchief	— 7	— 7	Cap	— 1 —	— 1 1
Hat or cap	— 2 6	— 2 6			
Night cap	—	— 6			
Total	1 16 6	3 4 10	Total	1 1 9	1 5 8 boy's 1 1 6 child's

A Woman's Suit.	Cost of in		A Girl's Suit.	Cost of in	
	St. Martin-in-the-Fields.	Bedford Union.		St. Martin-in-the-Fields.	Bedford Union.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
Gown	— 4 6	— 4 —	Gown or frock	— 3 6	— 2 —
Under petticoat	— 3 4	— 3 3	Under petticoat	— 3 3	— 2 —
Upper „	— 3 1	— 2 —	Upper „	— 2 6	—
Shift	— 2 —	— 1 3	Shift	— 1 3	— 8
Stays	—	— 3 —	Stays	—	— 1 —
Skirt	—	— 2 —	Skirt	—	— 1 —
Apron	— 9	— 1 —	Apron	— 7	— 10½
Cap	— 1½	— 4			
Stockings	— 11	— 1 2	Stockings	— 11	— 1 —
Shoes	— 3 1	— 4 —	Shawl or cloak	— 4 8	— 4 6
Bonnet	— 2 6	— 2 6	Bonnet	— 2 —	— 2 —
Shawl	— 5 —	— 6 —	Tippet and sleeves	—	— 3 —
„ small	—	— 1 2	Shoes	— 3 6	— 3 —
Handkerchief	—	— 7			
Night gown	—	— 10			
Night cap	—	— 2			
Total	1 5 3½	1 13 3	Total	1 2 2	1 1 —½

Note.—These particulars were kindly furnished to me by Mr. West, the Clerk to the Guardians of St. Martin-in-the-Fields, and by Mr. Wing, who holds the same office at Bedford.

(XVI.)—*Statement of the Prices of Clothing Materials and of Clothes supplied for the use of the In-door Paupers of Birmingham in the Year 1860.*

	Price.	
	s.	d.
30-inch strong grey calico, striped .. at	—	4 per yard.
68-inch striped calico sheeting..... "	—	9 "
36-inch strong Hurdan linen*	—	5½ "
" " striped* ..	—	6½ "
31-inch strong striped blue cotton ..	—	5½ "
Fustian	1	0 "
Scouring flannel	—	5 "
Cambric for shrouds..... "	—	2½ "
Worsted hose, men's	1	2 per pair.
" women's	—	11 "
Worsted	1	9 per lb.
Chambrey	—	3½ per yard.
Corduroy	1	2 "
Blankets, with blue stripe, as per pattern ..	1	4½ per lb.
Brown bed rugs	4	6½ each.
Men's hats	3	— "
" caps	1	— "
Women's bonnets	1	8 "
Men's boots (house make)	10	— per pair.
Women's (" ")	7	— "

* The plain hurdan is used for bed, pillow, and bolster ticks, sheeting for infirmities cases, clothes bags, &c.; the striped for men's and women's aprons, men's slops, children's pinafores, and tramp's shirts.

Note.—These particulars were kindly furnished to me by Mr. J. Corder, the Clerk to the Guardians of Birmingham.

(XVII.)—*Statement of the Weekly Cost per Head, in 1860, for the Food and Clothing consumed by the Inmates of the WORKHOUSES of the Unions included in Tables I and II; also the Rate of Expenditure of a LABOURER'S FAMILY, for the same Quantity and Description of Articles if obtained at the same Prices; the Family consisting of a Man, his Wife, and Four Children; and the Average Weekly Wages ONLY of an Agricultural Labourer during the Half-Year ended at Christmas, 1860.*

Divisions.	Rate per Head per Week in the Workhouses.	Weekly Cost per Labourer's Family at the Same Rate.	Man's Weekly Wages only, Half-year ended Christmas, 1860.
	s. d.	s. d.	s. d.
I. The Metropolis	not returned.	—	—
II. South Eastern	3 5	20 6	11 9
III. South Midland	3 3½	19 10½	10 5½
IV. Eastern	3 1	18 6	11 6½
V. South Western	2 9	16 6	9 6
VI. West Midland	3 —½	18 4½	10 —
VII. North Midland	3 3	19 6	12 8½
VIII. North Western	3 —½	18 1½	12 7
IX. York	3 5	20 6	13 5½
X. Northern	3 —½	18 1½	14 1
XI. Welsh	3 —½	18 3	11 2½
Average	3 1½	18 9	11 5½

(XVIII.)—*Statement of the EARNINGS per MONTH of an AGRICULTURAL LABOURER, his WIFE, and BOY, residing at Bolton Percy, near York, in the Year ended 28th February, 1842. (See Table X.)*

Month.	Man.		Wife.		Boy.		Total.	
	Days Employed.	Amount of Wages.	Days Employed.	Amount of Wages.	Days Employed.	Amount of Wages.	Days Employed.	Amount of Wages.
March 1841....	18	£ s. d. 2 3 -	5	£ s. d. - 4 2	10	£ s. d. - 6 8	33	£ s. d. 2 13 10
April „	25	2 13 8	17	- 14 2	23	- 15 4	65	4 3 2
May „	36	4 4 -	33½	1 7 11	35	1 - 4	104½	6 12 3
June „	24	2 16 -	21	- 17 6	23½	- 11 9	68½	4 5 3
July „	24	2 16 -	23	- 19 2	24	- 12 -	71	4 7 2
August „	24	2 16 -	24	- 19 7	24	- 12 -	72	4 7 7
September „ ..	24	2 16 -	23½	- 19 7	24	- 12 -	71½	4 7 7
October „	24	2 16 -	18½	- 15 5	17	- 8 6	59½	3 19 11
November „	36	4 4 -	30	1 2 -	27	- 13 6	93	5 19 6
December „	23	2 13 8	14	- 9 4	15	- 7 6	52	3 10 6
January 1842....	24	2 16 -	nil	—	nil	—	24	2 16 -
February „	30	3 10 -	nil	—	nil	—	30	3 10 -
	312	36 4 4	209½	8 8 10	222½	5 19 7	744	50 12 9

Note.—Some portion of the earnings of one month appears, in two or three instances, to have been paid in the subsequent month.

Compiled from the detailed account at p. 306 of “Report on the Employment of Women and Children in Agriculture, 1843.”

(XIX.)—*Statement of the MONTHLY SUMS PAID for LABOUR at Clipstone Park, Notts, the extent of the Farm being 1,500 Acres, of which 200 are Water Meadows.*

1830.	Paid for Labour.	Total per Quarter.	Proportion per Cent.
First Quarter—	£ s.	£ s.	
January	131 10		
February	139 9		
March	167 -		
		437 19	18·9
Second Quarter—			
April	170 -		
May	155 3		
June	187 6		
		512 9	22·1
Third Quarter—			
July	308 16		
August	344 5		
September	248 -		
		896 1	38·6
Fourth Quarter—			
October	156 9		
November	150 14		
December	167 4		
		474 7	20·4
		2,320 16	100·0

Note.—Compiled from the Rev. John Thomas Becher’s “Evidence before the ‘Lords’ Committee, 1830-31,” p. 228.

(XX.)—*Statement of the POPULATION Aged 20 years and upwards occupied in AGRICULTURE, in each Division of England and Wales in 1861; and of the Ratio per Cent. of the Agricultural to the Total Adult Population.*

Divisions.	1 Population in 1861.	2 Number of Persons Aged 20 and upwards.	3 Number at those Ages occupied in Agriculture.	4 Ratio per Cent. of 3 to 2.
IV. Eastern Counties.....	1,113,982	603,720	160,249	26·5
XI. Welsh	1,188,914	641,680	164,773	25·7
III. South Midland County	1,234,332	660,775	167,627	25·4
V. South-Western „	1,803,291	978,024	227,554	23·3
VII. North Midland „	1,214,538	654,679	142,389	21·7
II. South-Eastern „	1,628,386	887,134	184,601	20·8
X. Northern „	969,126	521,460	83,822	16·1
VI. West Midland „	2,132,930	1,160,387	179,363	15·5
IX. Yorkshire	1,789,047	961,945	137,681	14·3
VIII. North-Western Co.	2,490,827	1,351,830	112,184	8·3
I. The Metropolis	2,362,236	1,394,963	15,838	1·1
England and Wales....	17,927,609	9,816,597	1,576,081	16·1

NUMERICAL ANALYSIS of the PATIENTS treated in GUY'S HOSPITAL
for the last Seven Years, from 1854 to 1861. By JOHN CHARLES
STEELE, M.D., Superintendent of Guy's Hospital.

[Read before the Statistical Society of London, 18th June, 1861.]

THE accompanying series of Tables have been drawn up with the view of illustrating the annual amount of relief afforded to the community through the agency of a large Public Hospital, and are submitted to the Society in the hope that they may prove serviceable for purposes of reference and comparison with similar sources of information. Their scope embraces all the persons that have passed through Guy's Hospital for the last Seven Years, and the analysis of each year has been separately made from the records, of which they present a faithful abstract. In originating the registration, my desire was to combine a convenient register of the patients admitted and discharged, for the ordinary business purposes of the hospital, with some facts of more vital interest relating to the nature of Disease and results of Treatment, and so arranged, as to obtain with facility at the end of each annual period a general *resumé* of results. In order to accomplish this, it was found necessary to furnish each patient on admission with a card, containing his name, age, and date of admission, similar information having been already entered in the Hospital Register; and on the occasion of the patient's discharge, this bed card has been completed by the filling up of three remaining entries — representing the date of discharge, the result of residence, and the nature of the disease or diseases and injuries, as far as it is possible to obtain accurate knowledge. These details are subsequently re-entered on the dismissal side of the register, on a line corresponding with the entries on the admission side; which, in addition to the facts furnished by the card, takes note also of the previous residence, employment, social condition, and other matters tending to identify the patient. In cases of Accident, the cause of accident is entered on a separate column; and where operative interference has been judged requisite, the nature of operation, and other details bearing on the history of the patient are registered in a separate record. After much experience of the vital statistics of hospitals, I cannot help regarding a system of registration organized in this way as perhaps the only one that will admit of uniformity, and although its meagre character may be objected to on medical grounds, it is sufficiently comprehensive for reference and comparison, while it sedulously avoids all matters that admit of colour-

ing or fallacy. To attempt more would require much additional machinery, and is far better left to the many diligent cultivators of clinical details, who abound in every London hospital, and whose labours are weekly analyzed and reflected from the pages of our medical journals. The plan proposed by Miss Nightingale at the last meeting of the International Statistical Congress, was in most respects similar to the arrangement adopted in the accompanying tables, differing only in the manner of registration by substituting sheets for cards, and by a more rigid adherence to the nomenclature founded on the death register of the Registrar-General. The mode of registration is merely a matter of choice, and may be dealt with accordingly; but while fully admitting the desirability of adhering to one uniform system of nosology, I apprehend that in practice much difficulty will be experienced in attempting to systematize individual diseases; while every hospital establishment, especially if allied with a medical school, will be disposed to employ those terms of nomenclature which use and wont have made familiar to its rule.

Guy's Hospital, founded in 1722 for the reception of 400 patients, contained at the commencement of the septennium under consideration accommodation for 520 individuals. Since that time its benefits have been still further increased by the addition of nearly fifty beds, while its internal organization has undergone much alteration and change, mainly with the view of meeting modern requirements with respect to the successful treatment of the sick. To facilitate this, as well as to utilise the practice of the hospital for scholastic purposes, wards have been exclusively allotted for accidents, clinical, ophthalmic, uterine, and venereal affections, while the great bulk of the accommodation, amounting to 376 beds, is subdivided among what are ordinarily termed medical and surgical patients, in proportion to the relative claims for admission and the influence of disease on the sexes. One noticeable result of this classification, is the great similarity which obtains on a comparison of the returns of the practice of one year with another, an analogy rendered more obvious, by the fact that no limits are assigned to admission, save those necessary to meet the ordinary requirements of the hospital. The presence or absence of epidemic disease in the metropolis does not materially influence the induction, as contagious diseases are inadmissible, and the epidemics of childhood are, for the most part, treated at home. The first year of the septennium, however, presents features which renders it an exception to the rule laid down. On referring to the table, it will be seen that the deaths in 1854 exceeded by 25 per cent. the same results in the six subsequent years; a fact that is to be explained by the prevalence of cholera during the period, and the unusual facilities which the patients had, for a time at least, of obtaining admission. In other

respects the diseases and mortality of one year are but a reflex of another, and the combined results indicated in the tables may be accepted as having occurred in pretty equal proportions annually during the entire period under consideration.

The first Table of the series gives a collective return of the Total number of patients who have passed through the hospital from 1854 to 1860 inclusive, indicating also the results attending their residence, while the second takes note of the same numbers subdivided among the respective years, and includes also an enumeration of the class registered as out-patients. In estimating the amount of relief afforded, the division adopted into cured, relieved, unrelieved, and died, will be found, on experience, best adapted for questions of this nature, as it distinguishes a tangible result in every case. It is the plan now usually employed by hospital statista, and for the sake of uniformity it is desirable that it should be universally adhered to. It is no less desirable, however, that the exact meaning of the terms employed and the latitude which each embraces, should be fully understood, as fallacious inferences are not inapt to be drawn from a misinterpretation of the terms. The two first divisions, "well" and "relieved," represent two great measures of relief—the maximum and minimum, the relative proportions being 86 per cent. of the former to 25 per cent. of the latter. With reference to the class designated "cured" or "well," it is well known to those accustomed to hospital practice, that the meaning intended to be conveyed is not an absolute and permanent recovery from disease in all cases, but that it includes a very large number of cases where a restoration to temporary health is the utmost that can be expected. In fevers and in the greater number of surgical diseases, especially external injuries and patients subjected to operative interference, no doubt can exist as to the credibility of the return; while in a large mass of cases represented by the return "well," the amount of relief afforded must be accepted within circumscribed limits. The same remark is equally applicable to the division "relieved," which embraces 25 per cent. of the entire cases. Under this latter heading are included a large, perhaps the greater portion of the patients whose classification might, with equal propriety, have been inserted in the category of incurable cases, were it not the fact that they had received benefit from their temporary residence, and were discharged much better in health than they were at the date of their admission. The heading indicated by "unrelieved," is shown to average 8 per cent. of the total numbers discharged, and is interesting in consequence of its affording illustration of a fact that is often called in question, namely, that a considerable portion of cases deemed incurable are annually admitted to the benefits of the hospital. This average would of course be much increased in amount by the addition of the many cases of hopeless

disease that have died in the hospital; and it will be obvious, on reflection that in proportion to the facilities for admission given to patients at large, more than to any sanitary defects in hospital organization, are we to attribute the large mortality which obtains in the more liberally conducted hospitals, when compared with others where it is customary to reject persons suffering from chronic disease. Another circumstance not to be lost sight of in estimating comparative mortality, is the length of residence of the patients. It will be noticed, on referring to the table, that the average stay of each person has varied in respective years from thirty-two to thirty-five days; and on examination of details, it will be discovered that, in proportion to the length of residence, the chances of recovery become smaller. This fact is more marked in cases of chest disease than in any other class of affections, and as the class in question far outstrips in fatal results any of the others mentioned, the influence of the prolonged residence will become still more apparent.

The third and fourth Tables represent the annual changes that have occurred in the two great departments of the hospital, medical and surgical, distinguishing the sexes and noting the relative mortality. It will be observed that the results of treatment are in each department more favourable in the case of females than males, in consequence of the less liability of the former to attacks of acute disease. The great disproportion in the mortality between the two subdivisions is not less significant, for while in the surgical wards it averages less than 6 per cent., in the medical department it is rarely less than 14 per cent. of the numbers treated.

In Table V an attempt has been made to solve the question whether death occurs more frequently at one period of the day than another. An idea prevails extensively that some law of periodicity influences the period of dissolution, and favours the supposition that the death-struggle terminates an hour or two after midnight; but the data recorded do not support this assumption. They rather lead to the inference that the death term is pretty equally distributed over the whole diurnal period, although it is interesting to note the fact that the hours of midnight and noon are less marked with fatal results than the others, the proportion of deaths during these two hours not amounting to more than 115, or the 21·3 part of the entire cases.

Table VI comprises, under fifteen distinct headings, the various forms of disease treated in the hospital during the period named, along with the estimated results in each class. The plan adopted will be considered defective by many, in consequence of its collective character precluding the possibility of comparison with such tables as those of the Registrar-General; but, on the other hand, it is to a great extent free from errors of diagnosis and the fallacies which are

so apt to arise in an individual disease list, from the association and complication of diseases in the same person. On reviewing the different classes in the table, it may be noticed that diseases of the *organs of respiration* occupy, as might be anticipated, the most unfavourable position as respects mortality, the deaths amounting to more than one-fourth part of the total number affected with diseases of this class, and to no less than 27 per cent. of the total deaths from all cases. Consumption, in its numerous varieties and complications, numbers 537 of the 813 deaths, or 18 per cent. of the total mortality. This item in our accounts, after all that has been said about unhealthy site and overcrowding, is in reality the cause of the chief discrepancy in results when we compare the mortality of one hospital with another, for in proportion to the cases of consumption received, to the exclusion of diseases of a less grave character, so must the mortality of all hospitals be influenced. It would be as unfair, for instance, to compare the total results of treatment of such hospitals as Guy's or Bartholomew's with similar annual results of the practice of the London Hospital, where the accommodation is almost exclusively of a surgical character, as it would be to draw a similar comparison with the periodic reports of such establishments as that for consumptive cases at Brompton or the hospital for incurables. In the report of the Statistical Society on Hospital Statistics, it was ascertained that the deaths from consumption alone in the practice of the London hospitals amounted to rather more than 16 per cent. of the total mortality. It has already been noticed that the number of deaths from this cause at Guy's, has averaged 18 per cent.; and it would not be difficult to show that a similar large estimate of mortality has attended the course of other affections usually regarded as incurable. But independent of the mortality register, there is abundant evidence in these tables to show that so-called incurables partake largely of the benefits afforded by a general hospital, and that no form of physical suffering is excluded from the wards. The large class of sufferers, classified as *unrelieved* or worse on their dismissal, bears witness to this assertion, and testifies to the occurrence of a period when hospital treatment exhausts itself, indicating, at the same time, the want of an asylum suitable for their reception. It is frivolous to believe that the small modicum of accommodation supplied by one or two establishments, instituted with the avowed object of meeting this want, can relieve more than an inappreciable number. The natural consequence is, that a majority of these cases find a final refuge in the workhouse, while the remainder continue a burden on their friends or relations, who, in many instances that have come under our notice, have exerted themselves in their behalf at the expense of other, and sometimes more urgent, claims on their resources. The most feasible

attempts that have yet been made towards diminishing the evil, consist in the efforts of a benevolent society, recently instituted, for the object of introducing into the incurable wards of workhouses, many of those home comforts and conveniences that are found in general hospitals, and in other ways of promoting the comforts of the inmates. If in addition to those laudable efforts this society could prevail on the Poor Law Board to double the amount of its present minimum cubic space for each hopeless case of disease, it would confer an incalculable boon on the sufferers, and render the success of its own mission more hopeful and assuring.

Next in mortality to diseases of the respiratory organs, and still more significant of future fatal results, as shown by the larger percentage of cases unrelieved, are diseases of the *heart and blood-vessels, and dropsies*. From the former have been excluded numerous instances of cardiac disease, associated with affections of the respiratory organs, as well as rheumatism; while the latter heading, perhaps more open to objection in a strictly pathological sense than any other in the series, has been arranged solely to meet a want arising from the complicated nature of those affections, and can only be accepted as exhibiting an approximation to the number in which the dropsy formed the most distressing symptom.

Diseases of the *organs of digestion* number 2,222 of the cases analysed, and were followed with 431 deaths. In this number are included the cases of cholera already referred to, and which were attended with 65 deaths, as well as all the cases of hernia, which contributed 71 deaths to the total mortality. If these two diseases are excluded from the list, the fatal consequences will not appear so formidable, the percentage mortality being thus reduced to 16.

The numbers entered in the class of *venereal diseases* show a maximum of numbers and a minimum of mortality when compared with the others. Two wards, male and female, in the upper floor of the hospital have been set apart for their reception, the former accommodating twenty-four and the latter thirty beds, and generally speaking there is little difficulty experienced in keeping both fully occupied. On the female side, cases are continually applying for readmission, so that the table, of necessity, includes a considerable number who have passed through the hospital more than once, but who are there represented as separate individuals. On the male side the reverse is the rule, for readmissions in this department are less frequent than in any other portion of the hospital.

The four sections of the disease table, from the eighth to the eleventh inclusive, represent nearly 10,000 *surgical cases* properly so-called, and include in the category all injuries and diseases arising from external violence, the result of accident or intention. The two classes embracing diseases and injuries of bones and joints are

remarkable for the small fatality attendant on their sojourn in hospital; but it is proper to notice, that in addition to ordinary diseased joints, the ninth section comprises all the cases of rheumatism that have occurred in the hospital during the period mentioned. These usually average from 190 to 200 cases annually, and as the mortality pertaining to them is almost *nil*, certainly not more than 1 per cent., it would be nearer the mark to fix the rate of death among the purely surgical affections at 6 instead of 3·3 per cent. The greatly increased mean residence of persons suffering from diseased joints, is a feature in connection with the class worthy of note; and as is the case with other groups of disease characterized by long stay in hospitals, the amount of benefit conferred becomes reversed in proportion as the columns headed "relieved" and "unrelieved" abundantly testify. In this respect, scrofula, which is the primary source of these affections, bears a similar relation in surgical ward practice to that held by consumption in the medical wards, and is even more chronic in its career, although at the same time it is not usually attended with fatal results.

Under the class, *fevers*, are enumerated besides the ordinary continued fevers, the various exanthems, as well as cases of ague and also the milder forms of febrile disease, the whole combining to reduce the total mortality from these affections to 8 per cent. Excluding the latter from the calculation, the mortality in the severer forms of fever usually known as typhus and typhoid, is increased to 12½ per cent., or about 1 in 8 of those attacked, a death-rate that will be found to mark a fair average of results in all establishments where proper hygienic precautions are used to promote a successful issue. With this view it has been customary to place patients suffering from fever in those positions most likely to be favoured with a constant renewal of the atmosphere, and in as isolated places as possible, consistent with the general requirements of a medical ward. Notwithstanding the proximity of these cases to the general patients, little harm has been found to ensue from the practice, although at the same time precautions are taken to restrict as much as possible the admissions of persons suffering from febrile diseases to the same apartment. In the event of the disease proving epidemic in the locality, such an arrangement could not be carried out with impunity, as it is a fact fully established by observation, that the concentration of the poison appears to develop its inherent contagious influence.

The last or fifteenth section of the disease table, comprises a motley group of affections, the most prominent of which are intemperance, destitution, gangrene, uncertain or unascertained diseases, malingering, and patients admitted without any disease. It is obvious that these will form a considerable proportion of the patients

admitted annually to all hospitals, and that no system of classification can be arranged to place them in a scientific nomenclature. The utmost that can be done is to reduce the section to the smallest possible limits consistent with truth by distributing diseases of uncertain seat—such as rheumatism and scrofula, under some other subdivision allied to them through a prominent system. With this object, the former complaint has been placed under diseased joints, while the latter, with more justice perhaps has been chiefly distributed over the eighth, ninth, and eleventh sections according to the prominent manner in which it manifested itself. Notwithstanding the curtailment, the total cases amount to 876 of the entire number classified in the table.

Table VII, representing the *ages of the patients*, possesses some features worthy of notice. It will be observed that a considerable proportion of cases entered are children, of which 1,185 are under 5 years, and 2,708 are under 10 years. These patients are usually distributed among female adults, and have cots assigned them in the relative proportion of about one cot to every five beds. It is understood that this arrangement answers better than one adopted in former years of having separate wards allotted for the purpose, as by the present plan the little sufferers are, as a rule, better looked after and from their diminished number they can be more readily quieted. They are admitted with all forms of disease, with the exception of those contagious maladies which debar them even from the benefit of institutions set apart for the exclusive reception of children, and which a wise experience has demonstrated are much better treated at home. The mortality at different ages is well illustrated by the table. Under 5 years we have the uniformly large proportion of deaths associated with the most critical period of life; the major portion of the deaths, however, are not those that we find swelling the death-roll of the Registrar-General at this early age, but are chiefly attributable to external injuries from burns, while a smaller proportion are assigned to croup and tracheotomy. The class in the table, including these injuries, presents by far the largest proportion of deaths under 5 years, the numbers quadrupling at the same age those entered under the section of respiratory diseases, usually the most prolific cause of the casualties of childhood. From 5 to 10 years the deaths diminish from 16 to $6\frac{1}{2}$ per cent., and are still mainly attributable to burns and scalds. After this, the mortality diminishes, the quinquennium between 10 and 15, presenting a death-rate of only $4\frac{1}{2}$ per cent.—the smallest in the series. It now increases gradually, and in pretty equal proportion through each quinquennial period till it reaches 80 years, the decennium preceding this term being marked with a death-rate of $18\frac{1}{2}$ per cent. After 80 the debt due to nature is repaid with compound interest,

the mortality being 33 per cent., or twelve out of the total number of thirty-six patients who were admitted to the hospital over 80 years of age. The intervening years, betwixt 15 and 30, will be observed to furnish by far the largest proportion of patients to this, as they do to all hospitals for the sick, not less than 14,000 of the total number being entered under the above ages.

One of the columns of the hospital register distinguishes the *countries* in which patients have been born, and an analysis of this column has been made in Table VIII appended to the series. Foreigners are usually afforded every facility of admission to the endowed hospitals, and the data in the table prove that they are in the habit of fully availing themselves of the privilege.

Another column, exemplified by Table IX, refers to the localities in town or country, from which patients are brought. A partial analysis only of this table has been made, comprising 5,000 of the patients, chiefly under treatment during the year 1859, 3,000 of which were admitted into the surgical division, and 2,000 into the medical wards. Though limited to one year, the numbers are sufficiently comprehensive to indicate, under a general estimate, the proportion of inmates furnished by town and country. The subdivision under three headings represents the patients admitted from the districts situated within and without the parliamentary boundaries of the metropolis, the terms Middlesex and Surrey being used to indicate those districts on each bank of the river within the boundary. It is not unusual to hear stated as a matter of regret that two of the largest metropolitan hospitals should have been placed in such close proximity to each other as Guy's and St. Thomas's; and there can be no doubt, locally speaking, that it would be a great convenience to the sick poor of the densely populated localities south of the river, if they were placed further apart; at the same time it must be borne in mind that no difficulty is experienced in filling the wards of each hospital, nor are they limited to the districts of the boroughs of Southwark and Lambeth, for their supply of inmates. It will be noticed that more than one-fourth part of the number who have received benefit from the Charity, is furnished by the districts lying north of the river, chiefly St. George's in the East and Whitechapel, localities that are generally supposed to be succoured by the London hospital. There is another fact brought to light by the table that ought not to be lost sight of. In calculating the respective numbers, a marked disproportion is observed to exist between the medical and surgical patients received from the Middlesex side, when compared with the analogous admissions from our own localities, a circumstance that can only be explained by the want of accommodation for medical patients in the north-eastern districts of the metropolis. These facts are fully borne

out by the experience of St. Thomas's Hospital, which in other matters closely resembles the data afforded by these tables. Of patients received from the country, by far the larger number arrive from the three neighbouring counties, south of the River Thames, and as a rule preference for a particular hospital is to be judged of, from its convenient position more than to any supposed superiority in its interior administration. Notwithstanding this, a certain proportion of cases are annually received from the provinces, from localities already furnished with asylums for the sick poor, and not a few show a partiality for this, as they do for other hospitals, in consequence of recommendations made by medical gentlemen formerly associated as pupils with the hospital.

Table X presents us with a summary of the more important *surgical operations* performed during the period in question, and gives a fair estimate of the palpable benefit arising from this interesting and important field of observation. There is perhaps no department of hospital statistics that has been more diligently cultivated by individual inquirers than that of operative interference in surgical disease, and there are none so liable to be trammelled with the influence of personal bias in favour of, or in condemnation of, particular operations. This evil, chiefly attributable to the miscellaneous nature of the information from which a deduction is made, is perhaps less felt in the field of hospital experience than in any other, for here it is not difficult to discover and to make due allowance for those unities of time and place which possess such a vital influence on the results of practice. On this account also, the experience of one hospital, when the returns are sufficiently comprehensive, is more to be relied on than that obtained in mass from several similar sources, where in all probability the data have been collected under widely different circumstances. It is absolutely essential in judging of results that antecedent distinctions should be carefully made, and at the outset of all inquiries similar to those we are at present engaged in, there arises no greater fallacy than that which springs from a desire to incorporate large numbers, with the view of arriving at foregone conclusions. In the table of operations are arrayed in the category of simple operations as well as under more complex headings, a large proportion of individuals, whose physical condition is by no means adequately expressed by the classification adopted nor indeed is it possible under any classification to take note of the numerous casualties which complicate operative success in particular hospitals. It is well known to all conversant with our public institutions, that prior to a patient's seeking an asylum there, especially if he is labouring under any unusual form of surgical disease, he has generally had the advice of the regular, and not unfrequently has submitted to the treatment of the spurious practitioner. The conse-

quence of this state of things, by no means improves the ultimate results, and if we deduct, as we are in fact necessitated to do, no inconsiderable proportion of cases whose favourable character for operation has already induced the medical practitioner to interfere on their behalf, our means of judging of average success and fatality become still more doubtful and unsatisfactory. The important question with reference to amputation is one that has frequently been attempted to be solved by the statistical method, but however, useful and instructive a collection of data from authentic sources bearing on the subject may be, it is far from probable that it would influence the surgeon in his attempts to save life or limb. An inherent persuasion acquiring strength from personal experience and observation, and untrammelled with dogmas, unless of an individual kind, is doubtless the incitement to action in the majority of instances in question. The natural tendency of the mind to become conservative is also nowhere better shown than in the field of operative surgery, and without venturing on an assumption that would appear arrogant we cannot withhold an impression that in proportion to the experience obtained, the repugnance to amputation renders itself more manifest, and thus the results of operation are in consequence more fatal, and to appearance unsatisfactory. It is from the class of patients registered as secondary amputations from injury, that we have to ascribe an unusually high rate of mortality in hospital practice, and at the same time we are bound to draw an inference from this source, that the laudable attempts to save limbs have not been unattended with success, notwithstanding the fact that their existence is ignored in the operation list and consequently they cannot appear to the credit of the surgeon. These remarks are not made in any apologetic tone, but are simply intended as facts to guide us in forming an estimate of the results contained in the tables, and without which it is impossible to arrive at any correct conclusions. In the list of operations submitted, there are no fewer than 383 cases wherein amputation has been performed. These numbers include, however, many minor operations, and to facilitate reference the following reduced classification of what are usually called capital operations, will be found better suited than that employed in the larger table.

The proportion of males to females who underwent amputation is in the ratio of 4 to 1, and the deaths will be noticed in the extended list to be somewhat greater in the former than in the latter; the numbers, however, are not sufficiently comprehensive to draw conclusions from. The next section in the table refers to the excision of tumours, of which operation there are no fewer than 446 instances registered, by much the largest subdivision in the operation list. The pathological characters of the tumours, as far as they could be determined, as well as the sexes of the patients, are entered on the

table. It is noticeable that the female sex suffers in a much greater degree than the male from this class of disease, the proportion being rather more than two of the former to one of the latter, and that

Amputation of	Total.	Primary.			Secondary.			For Diseases.		
		Cured.	Died.	Mortality pr. Cent.	Cured.	Died.	Mortality pr. Cent.	Cured.	Died.	Mortality pr. Cent.
Thigh	106	6	11	64·7	2	8	80	66	13	16·4
Leg and foot	58	8	9	52·9	3	6	66·6	25	7	21·8
Shoulder and arm	28	10	9	47·3	4	2	33·3	3	—	—
Forearm and hand	32	14	1	6·6	3	—	—	13	1	7·1
	224	38	30	44·1	12	16	57·1	107	21	16·4

tumours of the female breast average nearly 83 per cent. of the total cases. Of mammary tumours by far the largest number are classified as cases of cancerous disease, the proportion being about $2\frac{1}{4}$ to 1 of a miscellaneous character; but it is proper to notice that many of the cases entered on the list have been the repeated subjects of operation, although only registered afresh after being discharged and readmitted to the wards. The next section in the table comprises excisions of diseased bones, a most fertile source of surgical interference in all hospitals. Under this head have been analysed 265 cases, of which 57 are referable to the bones of the the upper, and 161 to those of the lower extremity. The numbers indicate a class of operations in which perhaps the minimum amount of amelioration is obtained in proportion to the length of residence of the patients, those marked unrelieved, being for the most part subjected to subsequent amputation of the diseased limb, and they consequently reappear in the previous part of the table. Males outnumbered females in the proportions of 201 to 64, and the mortality as usual was also greater in the former than in the latter.

The section indicated by the heading of *reparatory operations* represents a most interesting class of cases where attempts have been made to remedy natural and accidental deformities, through the plastic influence of the tissues in the immediate neighbourhood of the parts involved. The results obtained are highly suggestive of the benefits to be hoped for, in what are often assumed as a most hopeless class of cases, and although the numbers unrelieved, are higher in this than in any other department of operative aid, the inference is not less favourable to judicious attempts at reparation.

The important operation of *lithotomy* is entered as having been performed 98 times during the period and as having been accompanied with 16 fatal results. A glance at the ages of the patients

operated on, for stone is appended to the table, and shows how the operation may be classed as one of the most hopeful as well as one of the most formidable and fatal in the whole category. Under the age of 18 years the mortality rises no higher than 8 per cent., while from 18 to 50 years it averages as much as 24 per cent., and after the term of life last noted five out of six cases proved fatal. The returns of lithotrity are even less favourable in the aggregate than the other, but it is of importance to notice that the ages of the subjects of this operation were mostly of an advanced character, and that the greater number were operated on several times, a circumstance that is sometimes lost sight of in the preparation of similar returns, where each separate crushing is instanced as an individual operation.

It was noticed at the outset of these observations to be the misfortune of sick hospitals to receive into their wards a very numerous class of patients after the ordinary surgical appliances have failed to ameliorate their condition. In no section of the long list of operations does this fact obtain with more force than those comprised under the term herniotomy. The records of hospitals in relation to this particular operation are certainly very unfavourable, and there are few Hospital Surgeons who have not had reason to condemn and to deplore the practice of receiving patients suffering from the disease in question, days, and sometimes weeks, after all manual attempts at reduction have proved hopeless, necessitating the alternative of an operation, which under the circumstances is little better than death itself. Of the entire number registered, it will be noticed that 51 persons underwent the operation for inguinal hernia; the form of disease usually affecting the male sex, of whom 26 recovered and 25 died. The results of operations in femoral hernia, to which females are more peculiarly liable, has been considerably more successful, 68 having been cured while 39 died.

Of operations on the eye, the last subdivision of the list, little need be said. These refer specially to the more important class for improving and giving sight, and have been performed under the most favourable circumstances, as the success attending them abundantly testifies. The two casualties which are entered as having occurred after the operation of extraction, are due one to cholera, and the other to chest disease occurring in an old man who died in another department of the hospital. Similar extraneous results have determined the fatality of a certain proportion of the cases entered in the operation list, and which appear of a trivial character to be attended with fatal consequences. The operations having proved successful it would have been perfectly justifiable to have entered them on the first column of the table, but as supervening complications will always, even under the most favourable circumstances, be associated in some degree with general results, it has been deemed

advisable to transcribe the issue of each case from the termination of the patient's residence in hospital.

Table XI of the series presents under twenty-two separate sections the several cases of accident that have been admitted to the hospital during the period in question. The division adopted gives an excellent illustration of the causes leading to injury of the person to which a great city population is continually liable, as well as the danger to life involved by each separate class. The relative numbers from individual causes of accident are very similar in a comparison of one year with another, and it is presumed that a similar, if not a larger, proportion of cases presenting like features of cause and effect are annually taken into St. Thomas's Hospital which is even more conveniently situated than Guy's for the reception of the casualties which will always complicate the traffic at London Bridge. The first section, relating to accidents occurring on the river gives perhaps a less favourable estimate of comparative frequency of cause than any other in the series, inasmuch as the bulk of these accidents occur in the neighbourhood of the Docks, and as a rule are received into the London hospital. Cases of accidental poisoning and attempts at suicide number 124 of the total accidents, not a few of the latter were attempted by poisons but it is a noteworthy fact that during the last two years this means of suicide has materially diminished in frequency, not more than five cases having been received during the period named. It will be observed that attempts at suicide are not as a rule very successful; in females less so than in males the proportion of deaths being in the former about 1 in 8 cases, and in the latter in about 1 in 4. In truth, it is very questionable whether all these cases can be classified under the heading adopted in the table, as it is generally understood by those accustomed to hospital experience in these matters that a large proportion of so-called suicides do not really meditate self-destruction, and that the vicious impulse involved in the simulated attempt is nothing more than a morbid desire to procure sympathy, or to produce remorse, and, in fact, is only in a less degree the offspring of that moral cowardice which is the mainspring of action in the perpetrators of the more heinous crime.

Burns and scalds occupy a large place in the category of accidents. The total number of injuries from these causes amount to 425, of which not less than 218 are observed to have arisen from the clothes of the patients taking fire. This cause is also noticeable as being by far the most deadly of the several ways in which a person may be burned, the deaths outnumbering by 25 the numbers of patients who recovered. As might have been expected, the number of females injured in this manner is very much larger than males, the numbers being respectively 142 and 71, or exactly double. In only one other

instance, in which the causes are of sufficient frequency to draw deductions, do females appear more susceptible of injury than males, namely, in the section designated as "falls down stairs," but in this division the numbers partake much more of an equality than the other. A glance at the totals of the accidents shows the comparative liabilities of the sexes to causes of injury, as being in the proportion of 5 males to 1 female admitted. Collisions between opposing forces, with street vehicles and simple falls on the ground, accidents incidental to a crowded throughfare, comprise 1,077, or more than one-fourth part of the total number in the table. The relative mortality is observed to be small, not averaging more than 7 per cent.

A larger source of supply arises from falls from heights, such as from scaffoldings erected for building and other purposes, and falls of heavy weights on patients, such as loads of bricks, stones, earth and rubbish. The two causes combining to produce injuries of a similar character, comprise 85 per cent. of the total accidents, and the mortality attendant thereon may be estimated at $8\frac{1}{2}$ per cent. It may be noticed as a distinctive feature of the accidents generally, that they do not contribute as a rule to augment the average mortality. The reverse effect has frequently been ascribed to them, but the data furnished by these returns do not justify the inference, for with exception of two or three of the causes enumerated, the great bulk of the sections exhibit a comparatively low range of deaths when compared with other departments of hospital practice. Of the remaining causes of injury the only two claiming special reference are those arising from machinery and accidents occurring on the railway. These do not present very alarming totals for the period, when compared with other causes in continual operation. Accidents from machinery have been almost entirely confined to males, there being only two females entered under this head, while the mortality from the same cause has been comparatively small, being little over 6 per cent. Next to burns produced from clothes catching fire the railway *injuries* furnish us with the most fatal class, one out of every three persons injured *from this cause* dying, and females will be observed to have suffered in a much less degree than males, the proportionate numbers being 1 female to 16 males injured from the cause in question. No enumeration of the causes of accidents can be considered complete without allusion being made to the most prolific and at the same time the most preventible source of all accidents, namely drunkenness. We have no satisfactory statistics to guide us in estimating the proportion who have suffered from this vice, but from personal observation and experience alone we can safely confirm what has been frequently stated by others, that of all the causes in operation leading to temporary or fatal injury to the person, there

are none to be dreaded so much as those arising from the vice in question.

In fact, the public-house is no less the greater tributary to the sick hospital than to the union workhouse, and there are few moral lessons which possess greater opportunities of practical application than those illustrated by the everyday experience of an hospital ward.

Out-Patient Department.

An important feature in connection with every London hospital is its out-patient department. It is here that its benefits if not usefully bestowed are at all events numerically lavished, and although the operation of the department may be attended with many serious objections, of a character best known to those to whose care it is entrusted, it does not admit of a doubt that a large amount of relief is annually furnished to the population by the efforts made to treat disease after this somewhat summary fashion. As the Dispensary system of house-to-house visitation is denied in all London hospitals the out-patient department is based on the assumption, that applicants for relief are capable of attending at the hospital at given intervals of time, irrespective of their maladies or of the symptomatic changes accompanying them. The necessary result of this state of things is, that a numerous class of persons suffering from all species of disease especially incidental to life in a crowded city, and not of sufficient severity to detain them at home, daily flock to those establishments especially where free charity is administered, and where no limit is assigned to their number, unless perhaps it may be regulated by the exhausted energies of the Medical Officer. From the miscellaneous crowd are selected no inconsiderable portion of persons whose complaints being of a graver character than the others are drafted into the hospital as fit objects for in-door relief, while a fair proportion of the remainder are largely benefited by their occasional attendance. Notwithstanding this admission, we believe that the privileges obtained in this way are greatly abused, not only by the poor themselves but also by many whose position in life scarcely warrants their accepting charitable aid.

The *hospital-going people* of the metropolis, as a class, are remarkable for many features in common which distinguish them from the industrious and deserving poor. They are not as a rule composed of "those whose lot it is to labour," but are rather recruited from the grades who follow sedentary occupations, or of those who have no avocation at all, and while females form the great bulk of the applicants, their numbers comprise no inconsiderable proportion of the weak members of the other sex as well. Their appeals are not restricted to any particular hospital or to medical

authorities attached to it, as they migrate at intervals from one hospital to another, to test their comparative benefits, and it may be frequently noticed that their confidence in an establishment increases in proportion to the difficulties to be overcome in obtaining access to its charity. It is scarcely to be wondered at, that under such a system, a morbid confidence is engendered in the miraculous agency of physic, and that the unfortunate votary should become developed into the regular medicine voluptuary whose critical and acquisitive tastes would have found no soil for cultivation if attention in the first instance had been paid to the few natural laws which govern the functions of the organism. It has been suggested as a means of remedying the abuse complained of, that a small fee should be exacted from each recipient, and if it were possible to separate the industrious and deserving from the habitual medicine taker, there can be no doubt of the efficacy and benefit to the community at large which such a practice would induce.

But to return to the Tables. In the enumeration of patients relieved at the out-patient department it has been found impossible to furnish any detailed data of importance, for, with the exception of the midwifery division, we have no records to supply us with more than a simple numerical registration. The first table is comparatively of more importance than the others, as it refers to the patients examined and prescribed for at weekly intervals by the regular medical staff, and as they happen to be selected from the general crowd of applicants as eligible for special relief, it is assumed that their diseases are of a graver character than those alluded to in the sequel. The division adopted into surgical, medical, eye, and female diseases corresponds with that followed in the administration of the business of the out-patient department, which is under the superintendence of eight medical officers, who attend at stated intervals. Each special applicant is furnished with a card which entitles its holder to eight separate attendances, and if at the end of eight weeks it is desirable to continue the attendance, the card is renewed with this object.

The next class on the roll represents a total of 160,524 persons, whose diseases, generally speaking, are not sufficiently severe to require their continuous attendance, their visits to the hospitals being restricted to one or two occasions. The number is by far the largest on the list as well as the least satisfactory, inasmuch as the majority have not come under the cognizance of the regular staff, but have been examined and prescribed for by advanced pupils, selected for the purpose by the officers in charge. The enumeration has also been chiefly made from prescriptions retained in the dispensary, a source of doubtful accuracy, as it is possible that in some instances the patients have been prescribed for at separate intervals; nevertheless if

allowance be made for a proportion who receive advice without medicines, the discrepancies in the general total will not appear so great.

The list of minor accidents and operation cases treated in the surgery of the hospital numbers 13,387, nearly 2,000 persons annually, or two-thirds more than those treated inside the hospital. The list comprises such injuries as fractures of arm, dislocations, and in fact all such injuries which do not require the persons affected to remain in bed. As casualties of this kind are occurring at every hour of the day and night, the main work of the department falls to the care of the resident dressers, who are thus afforded a fruitful field of experience, independent of the general practice of the wards. The only remaining table, exclusively connected with the out-patients, refers to the lying-in charity associated with the hospital, and the statistics of which are more ample and detailed than the others. It appears from the analysis made, that nearly 12,000 mothers have been attended during confinement with results of a very satisfactory and encouraging kind. These persons are attended at their own homes by the pupils of the hospital, under the immediate superintendence of the physicians accoucheur, and two of the senior students are in constant residence at the hospital to keep the records and to attend to cases of urgency as well as to assist the junior pupils in cases of doubt or difficulty. The charity is of course entirely confined to the Surrey side of the river, and for many years it embraced within a radius of two miles from the hospital a considerable portion of the most densely populated districts of Southwark and Lambeth; but from the annually increasing applications for relief, and the demand made on the time of the students, it has been found necessary to curtail the area of its operations to the extent of one-half, or a mile's radius from the hospital. This circumstance will account for the diminution in the numbers attended during the last few years, or since 1856, at which period it appears to have reached its maximum.

Appended to the series of tables there is a record of the total numbers who have annually passed through the hospital from the *date of its foundation to the present time*, compiled from the admission, discharge, and death registers. An examination of this return proves that *the rate of mortality* has materially diminished since the commencement of the period, or at all events since the decennium 1740 to 1750, at which time it reached its maximum, namely 14·7 per cent., and although it may have fluctuated slightly during decennial intervals since the period mentioned, as a general rule it has continued gradually to decrease, the last decennium exhibiting the lowest average, namely 9·1, which would have been still further reduced if the exceptional year, 1854, had been excluded from the

analysis. An examination of the last century records explains in some measure the causes contributing to the excessive mortality during that epoch. The deaths registered are not dissimilar in character to those which of late years have constituted the highest class, but in addition to the ordinary large proportion of consumptions and dropsies we meet with an unusual number of cases of fever, small-pox, and syphilis, diseases now either of rarer prevalence or of less severity, or, as in the case of small-pox, inadmissible by reason of its virulently contagious character, which circumstance has necessitated the segregation of the patients in a suburban hospital set apart for the special purpose. We are also justified in inferring, from the great preponderance of hopeless cases of disease freely admitted during the greater part of last century, that the governing body was anxious to comply with a desire somewhat ambiguously expressed in the testamentary dispositions of the Founder, to the effect, that they should provide accommodation for a large number of persons whose diseases were deemed incurable; a practice which a more enlightened policy has long since thought fit to abandon.

But while mainly attributing the favourable indications to the causes above specified, it would be manifestly unjust to under-estimate the value of the greatly improved methods of medical treatment which modern science has originated for the cure of the sick, as well as the greater attention now being paid to hospital hygiene. For many years past this branch of science has been developed in a variety of ways in nearly all establishments of a similar kind. Its advance is best promoted by the improvement of the dietary of the inmates, by enlarging the individual allowance of space allotted for beds, by obtaining, at all hazards, open grounds for airing purposes, and of altering and modifying internal structural arrangements when they are found to be opposed to sanitary requirements. These measures are not effected without great difficulty and expense; in all hospitals they have vastly increased the average cost of the patients, and in many they have been attended with a considerable diminution of numbers, while they have brought others to the verge of bankruptcy. Still it cannot be doubted that in a matter of such vital importance the gain is well worthy of the sacrifice, and it is fortunate for a community that the successful management of its sick poor should have been left in a great measure to its own unaided benevolence, influenced and directed by the liberal and progressive tendencies which have characterized the present age.

TABLE I.—*Statistical Record of Guy's Hospital for Seven Years, from 1854 to 1860 inclusive.*

Patients in hospital, 1st January, 1854	453
Admitted during the period	32,360
Total	32,813
Discharged as cured, well, or convalescent	18,591
Relieved or improved	8,038
Unrelieved or worse	2,713
Died	2,978
Remaining in hospital, 1st January, 1861	493
	32,813

TABLE II.—*Showing the Comparative Numbers during the Period.*

	1854.	1855.	1856.	1857.	1858.	1859.	1860.
IN-PATIENTS.							
Remaining at end of each preceding year.....	453	454	458	452	497	481	479
Subsequently admitted	4,636	4,306	4,615	4,774	4,712	4,668	4,649
Total annually under treatment	5,089	4,760	5,073	5,226	5,209	5,149	5,128
Cured, or discharged as well, or convalescent	2,619	2,499	2,626	2,686	2,711	2,823	2,627
Relieved or improved	1,190	1,067	1,201	1,232	1,174	1,000	1,174
Unrelieved	300	332	390	433	413	431	414
Died	526	404	404	378	430	416	420
Remaining at end of each year	454	458	452	497	481	479	493
Average number daily resident	458	452	466	456	477	462	489
Mean residence of each person in days	33·2	34	33·3	31·8	33·8	32·7	34·8
Number of accidents registered.....	548	529	610	458	568	624	583
Number of surgical operations registered	330	340	349	349	352	299	* 394
OUT-PATIENTS.							
Number of surgical patients	2,750	2,753	4,303	3,837	3,700	3,265	2,875
„ medical cases	2,845	3,025	3,057	3,141	3,549	3,855	3,943
„ uterine cases	1,298	1,376	1,454	1,438	2,126	1,836	1,822
Patients with eye diseases	1,457	1,450	1,511	1,473	1,762	1,570	1,480
Casual cases	17,638	21,285	21,036	25,886	22,057	24,764	27,858
Minor accidents	2,334	2,268	2,262	1,549	1,570	1,735	1,669
Lying-in charity patients	1,738	1,753	2,011	1,731	1,651	1,640	1,404

TABLE III.—*Annual Table of Admissions, Dismissions, and Deaths, distinguishing the Sexes.*

	Surgical Patients.						Medical Patients.					
	Admitted.		Discharged.		Died.		Admitted.		Discharged.		Died.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1854.....	1,619	853	1,491	809	118	39	1,221	943	1,007	802	221	148
'55.....	1,542	913	1,430	860	99	57	1,004	847	841	767	164	84
'56.....	1,591	998	1,525	952	93	40	1,149	877	953	787	184	87
'57.....	1,552	1,048	1,458	1,003	65	35	1,222	952	1,050	840	166	112
'58.....	1,583	1,023	1,482	997	110	32	1,204	902	1,041	778	168	120
'59.....	1,637	1,062	1,560	1,014	80	48	1,114	855	923	757	187	101
'60.....	1,585	1,053	1,475	1,012	106	42	1,101	910	914	814	178	94
Total	11,109	6,950	10,421	6,647	671	293	8,015	6,286	6,729	5,545	1,268	746

TABLE IV.—*Annual Rate of Mortality, distinguishing the Sexes and the Two Main Classes of Disease.*

Years.	Total, over all the Cases.	Medical Cases, Mortality per Cent.			Surgical Cases, Mortality per Cent.		
		Male.	Female.	Both.	Male.	Female.	Both.
1854	11·3	17·9	15·5	16·9	7·3	4·6	7·8
'55	9·3	16·3	9·8	13·3	6·5	6·2	6·3
'56	8·7	16·1	9·9	13·4	5·7	4·	5·
'57	8·	13·6	11·7	12·8	4·3	3·3	3·9
'58	9·9	13·8	13·3	13·6	6·9	3·1	5·4
'59	8·9	16·8	11·7	14·6	4·9	4·5	4·7
'60	9·	16·2	10·4	13·6	6·7	4·	5·6
Total	9·2	15·8	11·8	14·	6·	4·2	5·6

TABLE V.—*Table of the Hours at which Death occurred.*

Years.	Deaths.	Hours, A.M.											
		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1855	202	27	17	16	17	18	16	16	18	13	22	12	10
'56	188	14	19	10	17	19	18	12	14	24	20	15	6
'57	185	17	18	12	21	23	11	12	10	20	17	15	9
'58	217	17	22	22	20	20	22	16	12	22	18	22	4
'59	207	14	23	21	27	14	19	13	19	17	11	17	12
'60	206	18	15	15	15	23	21	14	18	25	13	12	17
Total	1,205	107	114	96	117	117	107	83	91	121	101	93	58

Years.	Deaths.	Hours, P.M.											
		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1855	202	13	20	19	17	22	19	20	14	13	9	20	16
'56	216	19	30	27	15	21	16	15	20	11	16	20	6
'57	193	20	22	17	17	12	19	17	16	16	12	19	6
'58	223	16	19	32	21	17	27	11	14	20	12	16	8
'59	209	27	16	18	17	13	22	20	15	12	20	18	11
'60	204	16	19	14	22	12	26	21	15	23	21	15	10
Total	1,247	111	126	127	109	97	129	104	94	95	90	108	57

Note.—Table must be read from half hours to half hours, thus, 1 o'clock = 12'30 to 1'30 and so on.

TABLE VI.—*Summary of the Cases arranged according to Classes of Disease and the Results of Treatment.*

Diseases of	Total Cases.	Cured	Relieved.	Un-relieved.	Died.	Mortality, pr. Cent.
1. Nervous system	2,520	869	1,028	441	182	7.2
2. Respiratory organs	3,202	875	1,239	275	813	25.3
3. Organs of circulation	1,313	416	459	157	311	23.1
4. Digestive organs	2,222	1,058	518	215	431	19.3
5. Genito-urinary organs	3,025	1,532	903	363	227	7.5
6. Venereal diseases	3,608	2,862	610	121	15	.4
7. Dropsies	949	279	371	108	191	20.1
8. Diseases and injuries of bones	2,904	2,092	440	157	215	7.4
9. " " joints	3,055	1,853	868	231	103	3.3
10. External injuries of soft parts	1,736	1,321	167	40	208	11.9
11. Abscesses, tumours, ulcers ...	3,037	2,067	578	261	131	4.3
12. Diseases of the eye	1,853	1,283	375	194	1	—
13. " " skin	872	598	198	50	26	2.9
14. Fevers	1,118	959	50	18	91	8.1
15. Miscellaneous affections	876	527	234	82	33	3.7
Total	32,320	18,591	8,038	2,713	2,978	9.2

TABLE VII.—Table of the Ages of the Patients, arranged according to the Classification of Disease.

Diseases of	I. DISCHARGED.												
	Total.	Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 up.
1. Nervous system	2,338	46	145	257	286	294	280	448	325	191	55	8	3
2. Respiratory organs ...	2,389	27	65	100	278	368	366	525	394	179	75	9	3
3. Organs of circulation ..	1,032	51	23	79	183	141	116	158	148	90	38	5	—
4. Digestive organs	1,791	63	66	68	137	205	240	409	306	204	83	9	1
5. Genito-urinary organs ..	2,798	86	104	78	282	375	425	652	424	237	107	24	4
6. Venereal diseases	3,593	10	13	42	1,470	1,111	450	311	124	42	17	2	1
7. Dropsies	758	15	28	40	51	63	115	175	152	91	25	8	—
8. Diseases and injuries } of bones	2,689	140	326	237	273	216	286	527	392	236	119	31	6
9. Diseases and injuries } of joints	2,952	99	232	238	485	474	364	479	317	197	66	10	1
10. External injuries of } soft parts	1,538	161	139	167	171	157	177	236	184	86	56	14	—
11. Abscesses, ulcers, } and tumours	2,906	70	108	149	356	457	374	559	433	280	100	36	4
12. Eye diseases	1,852	70	142	236	318	256	177	230	164	149	88	22	—
13. Skin „	846	55	44	58	117	111	93	136	119	72	34	6	1
14. Fevers	1,027	23	75	145	235	193	133	118	68	28	9	1	—
15. Miscellaneous diseases ..	843	45	66	82	104	122	110	132	105	52	18	7	—
Total	29,342	950	1,466	1,976	4,746	4,543	3,706	5,085	3,655	2,114	890	187	24

Diseases of	II. DIED.												
	Total.	Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 up.
1. Nervous system	182	12	11	9	15	13	31	36	33	15	5	2	—
2. Respiratory organs ...	813	24	10	14	73	106	102	202	166	91	23	2	—
3. Organs of circulation ..	311	2	5	17	23	29	28	64	64	57	18	3	1
4. Digestive organs	431	12	6	9	24	38	46	88	80	71	44	9	4
5. Genito-urinary organs ..	227	8	6	4	9	21	27	49	46	34	16	6	1
6. Venereal diseases	15	—	—	—	3	2	5	3	1	1	—	—	—
7. Dropsies	191	4	7	6	13	15	15	41	49	25	14	2	—
8. Diseases and injuries } of bones	215	8	10	12	21	16	19	47	38	25	11	7	1
9. Diseases and injuries } of joints	103	1	4	6	16	13	17	17	9	11	6	2	1
10. External injuries of } soft parts	206	26	30	14	9	5	5	15	13	3	10	4	4
11. Abscesses, ulcers, } and tumours	181	7	3	5	12	7	15	24	22	13	12	1	—
12. Eye diseases	1	—	—	—	—	—	—	—	—	—	—	1	—
13. Skin „	26	3	1	—	1	2	—	9	4	3	3	—	—
14. Fevers	91	7	5	1	25	15	22	8	5	2	—	1	—
15. Miscellaneous diseases ..	33	1	4	—	3	2	3	7	2	5	3	3	—
Total	2,978	185	102	97	247	284	335	610	532	366	165	43	13

TABLE VIII.—*Countries in which Patients were Born.*

	No.		No.
England	29,212	Italy	29
Ireland	2,436	Spain	3
Scotland	234	Portugal	2
Wales	144	Turkey	1
Channel Islands	17	Greece	1
Malta	2	India	7
Sweden and Norway	10	Ceylon	3
Denmark	3	China	1
Russia	2	Africa	1
France	37	America	39
Belgium	5	West Indies	21
Holland	14	Australia	2
Germany	74	New Zealand	1
Poland	4	Born at sea	7
Hungary	2		
Switzerland	6		
			32,320

TABLE IX.—*Localities from which Patients have been brought.*

	Total.	Country.	Middlesex.	Surrey.
Medical cases	2,000	274	548	1,178
Surgical cases	3,000	510	576	1,914
	5,000	784	1,124	3,092

TABLE X.—*Summary of Surgical Operations Performed during the Period.*

Nature of Operation.	Total Cases.	Cured or Relieved.		Unrelieved.		Died.	
		Male.	Female.	Male.	Female.	Male.	Female.
Amputation of thigh	106	50	23	—	1	30	2
„ leg and foot	58	28	8	—	—	19	3
„ shoulder and arm	28	16	1	—	—	11	—
„ forearm and hand	32	25	5	—	—	2	—
Minor amputations	158	117	34	—	—	6	1
Excision of tumours of the female breast	146	—	136	—	—	—	10
Of other parts	300	131	155	6	1	3	4
Excision of diseased bones and joints	265	185	59	7	4	9	1
Ligature and compression of large arteries	35	20	3	8	—	4	—
Lithotomy	93	76	1	—	—	16	—
Lithotriety	15	7	1	2	—	5	—
Operations for hernia	287	110	101	1	4	31	40
Reduction of dislocations	82	64	8	6	2	2	—
Reparatory operations	104	47	41	7	9	—	—
Tenotomy	55	32	19	2	1	—	1
Tracheotomy	46	10	6	1	—	17	12
Operations on the eye	309	162	129	12	4	1	1
Miscellaneous operations	294	193	60	6	1	27	7
Total	2,413	1,273	790	58	27	183	82

TABLE XI.—*The following Table gives the Causes of the Accidents, with the Sexes and Mortality.*

Causes of Accidents.	Total Cases.	Cared or Relieved.		Died.	
		Male.	Female.	Male.	Female.
1. Accidents on the river, in barges, and shipboard.....	90	78	3	9	—
2. Assaults	173	102	56	14	1
3. Accidental poisoning	37	15	14	5	3
4. Attempts at suicide	87	36	35	11	5
5. Burns from clothes taking fire	213	34	60	37	82
6. „ heated fluids	177	90	46	26	15
7. „ explosion of gas	12	11	1	—	—
8. „ gunpowder	23	16	2	3	2
9. Collisions between opposing forces	108	90	14	4	—
10. „ with street vehicles	416	299	55	54	8
11. Cuts and blows from sharp instruments	175	138	28	8	1
12. Falls down stairs	155	69	78	4	4
13. „ from a height, scaffolding, &c.	832	679	83	62	8
14. „ from curb stones and on the ground.....	553	417	116	18	2
15. Fall of heavy weights on patients	427	364	17	45	1
16. Gunshot wounds	16	14	—	2	—
17. Machinery accidents	233	216	2	15	—
18. Railway „	84	51	4	28	1
19. Sudden torsions of the body.....	64	60	4	—	—
20. Foreign bodies lodged in natural passages	22	15	3	1	3
21. Bites of animals, 7 dogs, 2 adders, monkey, horse, rat, elephant, and a woman.....	14	13	1	—	—
22. Causes of accident not ascertained	9	3	5	—	1
Total	3,920	2,810	627	346	137

Out-Patient Department.

	Total Cases.	Men.	Women.	Children.
Surgical patients	23,483	8,768	10,636	4,079
Medical cases	23,415	8,696	10,554	4,165
Eye „	10,703	3,942	4,576	2,185
Diseases of women	11,350	—	11,350	—
Total ..	68,951	21,406	37,116	10,429

The numbers of persons prescribed for without being supplied with the ordinary letters for attendance as out-patients, 160,524.

The number of minor accident and operation cases treated in the hospital surgery, 13,887.

The following table gives a summary of the cases attended in connection with the Maternity Department during the last seven years.

Number of women confined, 11,928.

Number of single births, 11,800; twin births, 128; total children, 12,056; of the 12,056 children, 6,069 were living males, and 5,446 were living females; and 326 males and 215 females were still-born.

Of the total number 11,668 presented naturally, while 388 were abnormal presentations. Of the latter, 162 were breech, 101 were footling, 51 were arm, 34 were face, 6 were transverse, and 12 were placental presentations.

Of the 11,928 mothers confined, there were in their—

	No.		No.		No.
1st confinement	1,762	9th confinement	443	17th confinement....	4
2nd ,, 	1,910	10th ,, 	280	18th ,, 	4
3rd ,, 	1,806	11th ,, 	186	19th ,, 	2
4th ,, 	1,508	12th ,, 	107	20th ,, 	1
5th ,, 	1,308	13th ,, 	48	21st ,, 	—
6th ,, 	1,055	14th ,, 	30	22nd ,, 	1
7th ,, 	850	15th ,, 	14		
8th ,, 	597	16th ,, 	12		
					<u>11,928</u>

Among the mothers there were 36 deaths from the following causes:—14 from peritonitis, 7 from uterine hæmorrhage, 3 from rupture of womb, 1 metritis, 1 phthisis, 1 cholera, 2 pneumonia, 1 fever, 2 Bright's disease, 2 pyæmia, and 2 puerperal convulsions.

Retrospective Summary of the Patients Treated for the last Seven Years, with the Totals of each Year.

	Total.	1854.	1855.	1856.	1857.	1858.	1859.	1860.
Residents in hospital....	35,634	5,089	4,760	5,073	5,226	5,209	5,149	5,128
Dispensary patients	68,951	8,350	8,604	10,325	9,889	11,137	10,526	10,120
Casual cases	160,524	17,638	21,285	21,036	25,886	22,057	24,764	27,858
Minor accidents	13,387	2,334	2,268	2,262	1,549	1,570	1,735	1,669
Women confined	11,928	1,738	1,753	2,011	1,731	1,651	1,640	1,404
Total	290,424	35,149	38,670	40,707	44,281	41,624	43,814	46,179

*Number of Patients Annually Discharged and Dead in Guy's Hospital
since the commencement of the Institution in 1725.*

Year.	Total.	Dis- charged	Died.	Mor- tality per Cent	Year.	Total.	Dis- charged.	Died.	Mor- tality pr. Cent.
1725*	—	—	83	—	1772	2,230	1,997	233	—
'26	—	—	139	—	'73 ...	2,156	1,923	233	—
'27	1,080	923	157	—	'74 ...	2,194	2,010	184	—
'28	1,480	1,276	204	—	'75	2,247	2,013	234	—
'29	1,846	1,572	274	—	'76	2,239	2,030	209	—
1730	1,728	1,514	214	13·8	'77	2,350	2,128	222	—
'31	1,716	1,506	210	—	'78 ...	2,412	2,187	225	—
'32	1,737	1,468	269	—	'79 ...	2,064	1,814	250	—
'33	1,939	1,683	256	—	1780 ...	2,405	2,129	276	10·3
'34	1,781	1,524	257	—	'81	2,320	2,077	243	—
'35	1,889	1,631	258	—	'82	2,226	1,994	232	—
'36	2,007	1,743	264	—	'83	2,141	1,901	240	—
'37	1,760	1,502	258	—	'84	2,158	1,938	220	—
'38	1,798	1,548	250	—	'85	2,539	2,335	204	—
'39	1,745	1,468	277	—	'86	2,152	1,919	233	—
1740	1,895	1,587	308	14·2	'87 ...	1,965	1,717	248	—
'41	2,203	1,881	322	—	'88	2,090	1,854	236	—
'42	2,194	1,839	355	—	'89	2,469	2,256	213	—
'43	2,114	1,808	306	—	1790	2,243	2,021	222	10·2
'44	2,002	1,714	288	—	'91 ...	2,037	1,815	222	—
'45	1,892	1,603	289	—	'92	2,166	1,891	275	—
'46	1,923	1,633	290	—	'93	2,345	2,047	298	—
'47	2,135	1,820	315	—	'94	2,184	1,915	269	—
'48	2,081	1,802	279	—	'95	2,376	2,114	262	—
'49	2,057	1,766	291	—	'96	2,466	2,209	257	—
1750	1,980	1,685	295	14·7	'97	2,574	2,321	253	—
'51	1,890	1,639	251	—	'98	2,702	2,398	304	—
'52	1,847	1,607	240	—	'99	2,642	2,328	314	—
'53	1,948	1,693	255	—	1800	2,770	2,410	360	11·6
'54	1,951	1,693	258	—	'01 ...	2,653	2,369	284	—
'55	1,873	1,607	266	—	'02 ...	2,774	2,433	341	—
'56	1,936	1,706	230	—	'03	2,680	2,371	309	—
'57	1,823	1,603	220	—	'04	2,482	2,157	325	—
'58	1,749	1,588	161	—	'05	2,666	2,372	294	—
'59	1,841	1,637	204	—	'06	2,505	2,235	270	—
1760	1,845	1,672	173	12·	'07	2,856	2,553	303	—
'61	1,875	1,669	206	—	'08 ...	2,646	2,356	290	—
'62	1,907	1,673	234	—	'09	2,635	2,313	322	—
'63	1,911	1,698	213	—	1810 ...	2,669	2,384	285	11·3
'64	1,667	1,469	198	—	'11 ...	2,802	2,508	294	—
'65	1,881	1,657	224	—	'12	2,636	2,361	275	—
'66	1,900	1,692	208	—	'13	2,658	2,368	290	—
'67	1,847	1,641	206	—	'14	2,637	2,407	230	—
'68	1,858	1,648	210	—	'15	2,630	2,358	272	—
'69	1,985	1,771	214	—	'16	2,654	2,409	245	—
1770	2,076	1,853	223	11·3	'17	2,733	2,489	244	—
'71	2,155	1,908	247	—	'18	2,555	2,303	252	—
					'19	2,685	2,430	255	—

* From the decayed condition of the first registration book, it has been found impossible to calculate the numbers during the first two years of the series.

Number of Patients Annually Discharged, &c.—Contd.

Year.	Total.	Dis- charged.	Died.	Mor- tality per Cent.	Year.	Total.	Dis- charged.	Died.	Mor- tality pr. Cent.
1820	2,639	2,384	255	9·7	1840	3,646	3,329	317	9·6
'21	2,772	2,523	249	—	'41	3,402	3,067	335	—
'22	2,843	2,585	258	—	'42	3,694	3,353	341	—
'23	2,734	2,474	260	—	'43	3,757	3,427	330	—
'24	2,508	2,261	247	—	'44	3,911	3,519	392	—
'25	2,544	2,280	264	—	'45	3,807	3,413	394	—
'26	2,668	2,371	297	—	'46	3,789	3,380	409	—
'27	2,774	2,492	282	—	'47	4,049	3,660	389	—
'28	2,516	2,270	246	—	'48	3,772	3,397	375	—
'29	2,585	2,288	297	—	'49 ..	3,824	3,449	375	—
1830	2,603	2,297	306	10·1	1850	4,221	3,872	349	9·9
'31	3,279	2,934	345	—	'51	4,526	4,109	417	—
'32	3,043	2,756	287	—	'52	3,876	3,580	342	—
'33	3,095	2,825	270	—	'53	3,265	2,961	304	—
'34	3,395	3,095	300	—	'54	4,635	4,109	526	—
'35	3,306	2,985	321	—	'55	4,302	3,898	404	—
'36	3,470	3,161	309	—	'56 ..	4,621	4,217	404	—
'37	3,443	3,057	386	—	'57	4,729	4,351	378	—
'38	3,375	3,066	309	—	'58	4,728	4,298	430	—
'39	3,019	2,688	331	—	'59 ...	4,670	4,254	416	—
					1860	4,635	4,215	420	9·1

CENSUS OF IRELAND, *April*, 1861.—PRELIMINARY RESULTS.

THE Preliminary Report of the Irish Census Commission (composed of Mr. Donnelly as Chief, and Mr. Wilde and Mr. Abrahams as Assistant Commissioners, with Mr. Wilkie as Secretary), was presented on the 15th July (1861).

We are glad to be able to include the whole of the Report and to add to it a condensed version of the four leading tables exhibiting the population and religious denominations of the several counties, and the number of houses and families in each province.

Like every other official paper bearing Mr. Donnelly's signature the preliminary Report is marked by clearness and fulness, and conveys the results of well digested plans of inquiry.

I.

"We, the Commissioners appointed to take an account of the population of Ireland for the night of the 7th of April, 1861, in conformity with the provisions of the Act 23 and 24 Victoria, cap. 62, beg to lay before your Excellency the following abstracts of the enumeration as prescribed by section 10 of the Act:—

"Prior to 1841, the Irish Census enumerators were persons taken from the general community. In the years 1841 and 1851, the Census was taken partly by the Constabulary and Police, and partly by other enumerators, under the control of the officers of these forces. On the present occasion (except in the metropolis), the enumeration has been altogether effected by the officers and men of the Constabulary Force, whose local knowledge rendered them peculiarly well suited for this undertaking, and whose position throughout the country has afforded us a permanent staff of efficient enumerators, over whom the Government continue to exercise control. Moreover, their experience as enumerators on two former occasions and their familiarity with inquiries of this description, acquired by taking the annual returns of agricultural statistics for the last fourteen years, rendered their services especially valuable in acting as the *sole* enumerators for 1861. They are, we have reason to believe, personally acquainted with every house in their respective districts.

"The country was divided into 261 districts, each under the charge of a sub-inspector, who was accountable for the returns of his district. 5,096 men of the Constabulary, 15 Coast Guards, and 173 of the Dublin Metropolitan Police were employed as enumerators,—a force which the present extremely peaceable and crimeless state of the country enabled your Excellency to place at the service of the Census Commission. Printed instructions, with which the superintendents and enumerators were previously furnished, made them acquainted with the nature of the duties they had respectively to perform; and when necessary they were supplied with maps, boats, and in the Irish-speaking districts with interpreters.

"Upon the collection of the various Census papers on and after the 8th of April, each enumerator was required to fill up an abstract for every townland, and in cities and large towns for every street in his district, and to return it to this office attached to the file of enumeration papers. These *abstracts* contain the number and condition of the houses, the number of families, the population by sexes and their religious denominations.

"From the enumerators' abstracts the present return has been compiled, it must therefore be regarded only in the light of the *Enumerators' Census*. It is, as in all other primary returns of this description, but an approximation to the actual results of the enumeration—the precise numbers in which can only be ascertained when the individual forms have been examined in the office and checked in detail.

"In consequence of the enumerators' abstracts being fuller and more minute on this than on any previous occasion, we have reason to suppose that a greater amount of accuracy is now presented than has been obtained in the first Parliamentary Return of any former Census of Ireland. The circumstance that by these abstracts we have obtained a double enumeration—one for persons, and the other for the religious persuasion,—while it has caused some delay in furnishing this Report, has afforded a check by which errors were susceptible of correction in the accompanying tables with a precision not heretofore attainable. In order to test the authenticity of these enumerators' abstracts, two counties and one city have been examined in detail in the office, and the results thereof justify our opinion as to the approximate accuracy of the tables.

"The tables appended to this Report show the number of houses, families, and persons, by sexes, in each county, city and large corporate town in Ireland, with the decennial increase or decrease, at the years 1851 and 1861; and, as directed by the present Census Act, section 3, the religious persuasion in 1861;—together with the details of these subjects for the several boroughs, and for all towns of 1,500 inhabitants and upwards, in this portion of the United Kingdom.

II.

"We have to report to your Excellency that we have not experienced any difficulties in taking the Census for the night of the 7th of April, and have not had occasion in any instance to call into action the power granted by the seventh section of the Act. We are not aware of any disturbing cause, such as the temporary migration of labourers, having existed at the date of the Census enumeration.

"In order to afford the means of comparison we have retained the *territorial areas* adopted on the two last occasions. The only alterations made in the division of the country since 1841 are, the separation of the counties of Cork and Tipperary into ridings, effected before 1851; and on the present occasion, the separation of the suburban district of the metropolis from the county of Dublin, the boundary of which is defined in a note.

"Table I, exhibits, by sexes and persons, the number and distribu-

tion of the population of Ireland as enumerated on and after the 8th of April, 1861, as well as the numbers obtained by the Census of 1841 and 1851, with the decennial increase or decrease of the people in 1851, and between that period and the present.

"The *Total Population* enumerated on the 8th of April, 1861, as obtained from the enumerators' abstracts, amounts to 5,764,543,—the sexes being 2,804,961 males, and 2,959,582, females, or 787,842 less than that returned for the 31st of March, 1851,—being a decrease of 12·02 per cent. during the last ten years. These numbers do not include the men of the Army and Navy serving in Ireland on the night of the 7th April, but include the wives and families of such persons, and also soldiers on furlough.

"The following is the Provincial Summary of the three last enumerations:—

PROVINCES.	Number of Persons in						
	1841.	1851.	Decrease in 1851.		1861.	Decrease in 1861.	
			Persons.	Rate.		Persons.	Rate.
				p. ct.			p. ct.
Leinster	1,973,731	1,672,738	300,993	15·25	1,439,596	233,142	13·94
Munster	2,396,161	1,857,736	538,425	22·47	1,503,200	354,536	19·08
Ulster	2,386,373	2,011,880	374,493	15·69	1,910,408	101,472	5·04
Connaught	1,418,859	1,010,031	408,828	28·81	911,339	98,692	9·77
Total of Ireland	8,175,124	6,552,385	1,622,739	19·85	5,764,543	787,842	12·02

"The *present decrease is most apparent* in the city of Kilkeuny and town of Galway, and the counties of Tipperary, Clare, Meath, Kilkenny, King's, Wexford, Waterford, and Cork. The only localities in which an *increase of population* has taken place are Dublin County (now divided into its own proper civic and rural districts and the suburban circle of population round the metropolis), and the towns of Carrickfergus and Belfast, in which latter locality it amounts to 18,941, or 18·88 per cent. on the returns for 1851.

"From the Returns of the *Emigration Commissioners*, we learn that of the 2,249,355 emigrants who sailed from ports in the United Kingdom, between the 31st of March, 1851, and the 8th of April last, 1,230,986 were Irish; and from the returns obtained by the Registrar-General for Ireland, through the Constabulary agents at Irish ports, during the like period, we perceive that as many as 1,174,179 persons were set down as permanent emigrants. To this emigration may chiefly be attributed the decrease of the population, during a period when the country was remarkably free from any outbreak of famine, pestilence, or of the other social calamities which have occasionally retarded the growth of population in this and other countries. It must also be remembered that the effects of the disas-

terous period of famine and pestilence, which commenced with the potato blight of 1846-47, had extended over the first few years of the decade upon which it is now our province to report; and that there were no less than 250,611 paupers in the Irish workhouses and 47,019 persons in hospital, of whom 4,545 were not workhouse inmates, at the time of taking the Census in 1851, while there were but 50,570 persons in the Irish workhouses the day before the recent Census was taken."

III.

"Table II shows the result of the inquiry into the *Religious Profession* of the population. This is the *first occasion* on which this subject has formed a portion of the decennial Census; and when we state that in only fifteen instances have complaints, or objections to the enumerator's returns, been made to the Commissioners, the fact is to a certain extent a proof of the probable veracity of these returns as well as the willingness of the people and the clergy of all denominations to afford the utmost facility for arriving at the truth. In every instance in which a question arose as to religion, we caused the enumerator to make a *personal* inquiry of the individual concerned.

"The following is the provincial summary, arranged numerically, of the results of this portion of the inquiry, the particulars of which for each individual persuasion are set forth in Table II.

PROVINCES.	Religious Persuasions 1861.				
	Roman Catholics.	Established Church.	Protestant Dissenters.	All other Persuasions.	Jews.
Leinster	1,246,253	171,234	19,889	1,954	266
Munster	1,416,171	76,692	9,558	778	1
Ulster	963,637	390,130	551,095	5,442	54
Connaught	864,472	40,605	6,021	240	1
Total	4,490,583	678,661	586,563	8,414	322

"From this table we learn that on the night of the 7th of April, 1861, those of the Roman Catholic Church amounted to 4,490,583; those of the Established Church to 678,661; and Protestant Dissenters, to 586,563—amongst whom those of the Presbyterian Church numbered 528,992; Methodists 44,532; Independents 5,062; Baptists 4,165; and the Society of Friends 3,812.

"Those classed under the head of 'all other persuasions,' amounting to 8,414, were chiefly persons denominating themselves 'Protestant Dissenters' (unspecified), 'Reformed Presbyterians.'

'Separatists,' 'Christian Brethren,' 'Christians,' 'Covenanters,' 'Unitarians,' 'Seceders,' also members of the Moravian Church, and such travellers, temporary lodgers, and mendicants (presumed to be Christian), as to whom the enumerators, or the persons who filled the householder's schedules were unable to obtain the necessary information. The detailed particulars respecting the class enumerated under this head will be given at a future period. The number of Jews was 322."

IV.

"Table III presents the number of *houses inhabited, uninhabited, and building*, in 1841, 1851, and 1861, with the decennial increase or decrease between the two latter periods. The number by which the *inhabited houses had decreased* for the ten years ending 31st March, 1851, was 282,616, or 21·27 per cent. less than those recorded on the 6th June, 1841; while by the present inquiry we learn that the number of inhabited houses is 993,233, and the *decrease* since 1851 is only 52,990, or 5·08 per cent.

"The number of *uninhabited houses* in 1851 was 65,263, while in 1861 an examination of the same item shows but 39,972. In 1841 there were 3,313 *houses in process of building*, in 1851 only 1,868, and in 1861, 3,047. Taking the inhabited houses in 1841, there were 1·11 families to each house; in 1851, 1·15 families; and in 1861 1·14. The localities in which the house accommodation has *decreased* most are the counties of Tipperary, Kilkenny, Meath, King's and Queen's, in which also the population has very largely decreased;—while there has been an *increase* of inhabited houses in the towns of Belfast and Carrickfergus, the county of Dublin (chiefly in the suburban districts of the metropolis), the cities of Cork, Dublin, Waterford, and Limerick, and the counties of Antrim, Armagh, Londonderry, and Sligo.

"Table IV exhibits the number of families in each province, county, city, and certain large corporate towns in Ireland, in the years 1841, 1851, and 1861, with the decennial decrease between 1841 and 1851, and between the latter period and the date at which the present Census was taken. The decrease in the number of families between 1841, and 1851 was 268,468, or 18·23 per cent.; in 1861 the number of families returned by the enumerators is 1,129,218, showing a decrease of 75,101, or 6·24 per cent. on the returns made for 1851. This decrease is most apparent in the counties of Limerick, Queen's, Tipperary, Kilkenny, King's, and Clare. It has been least in the province of Ulster, where it only amounts to 2,017, or 0·53 per cent. An increase in the number of families has taken place in the towns of Belfast and Carrickfergus, the city of Dublin, and the counties of Dublin, Antrim, Armagh, Londonderry, and Sligo.

"The *average number of persons to a family* was 5·54 in the year 1841, in 1851 it was 5·44, and in 1861 it is 5·10. In the metropolitan city, while the population has decreased by 8,636 persons, the number of inhabited houses has increased by 514, and the proportion of persons constituting a family has, in proportion, decreased from

4·51 in the former to 4·26 in the latter period. In the town of Belfast, the average number of persons to a family is 4·79, and in the rural district of Donegal, 5·31.

"Table V shows the number of inhabitants in each Parliamentary borough in 1851 and 1861, with the increase or decrease between these periods.

"Table VI affords the religious profession in each of the thirty three boroughs.

"Tables VII and VIII present in detail the number of the houses and families in each Parliamentary borough.

"Table IX exhibits the population and religious profession in each town in Ireland, containing 1,500 inhabitants and upwards.

"When all the original returns shall have been minutely examined in this office, and the information which they contain carefully extracted, the figures in the following tables will, no doubt, be altered to a certain extent, but we have reason to suppose that such revision will not materially affect the general results.

"In our General Report we shall have the honour to lay before your Excellency the details of each of the subjects contained in this abstract, as also of the ages, education, occupation, marriage-condition, and vital statistics afforded by the returns obtained on and after the 8th of April, in the present year."

TABLE I.—NUMBER of INHABITANTS in each Province, County, City, and certain Corporate Towns of Ireland, in 1841, 1851, and 1861; with the Increase or Decrease between 1851 and 1861.

1	2		3	4	5	6	7 8	
Provinces, Counties, Cities, and Towns.	Number of Persons.							1861 more or less than 1851.
	1841.	1851.	1861.			More.	Less.	
			Males.	Females.	Total.			
<i>Leinster.</i>							Pr. ct.	Pr. ct.
Carlow co.	86,228	68,078	28,185	29,047	57,232	—	15·9	
Drogheda town	16,261	16,847	6,840	7,890	14,730	—	12·5	
Dublin city, municipal	232,726	258,369	114,294	135,439	249,733	—	3·3	
" " suburbs	140,047	146,778	19,132	27,099	46,231	3·7	—	
" " county			50,383	55,675	106,058			
Kildare	114,488	95,723	43,200	41,730	84,930	—	11·2	
Kilkenny city	19,071	19,975	6,395	7,686	14,081	—	29·5	
" " county	183,349	138,773	53,414	56,062	109,476	—	21·1	
King's	146,857	112,076	44,042	44,449	88,491	—	21·0	
Longford	115,491	82,348	35,893	35,699	71,592	—	13·0	
Louth	111,979	90,815	36,847	38,293	75,140	—	17·2	
Meath	183,828	140,748	55,876	54,733	110,609	—	21·4	
Queen's	153,930	111,664	45,154	45,596	90,750	—	18·7	
Westmeath	141,300	111,407	46,170	44,686	90,856	—	18·4	
Wexford	202,033	180,158	68,774	74,820	143,594	—	20·2	
Wicklow	126,143	98,979	43,774	42,319	86,093	—	13·0	
<i>Total</i>	1,973,731	1,672,738	698,373	741,223	1,439,596	—	13·9	

TABLE I.—NUMBER of INHABITANTS in each Province, &c.—Contd.

1 Provinces, Counties, Cities, and Towns.	2 3 4 5 6 Number of Persons.					7 8 1861 more or less than 1851.	
	1841.	1851.	1861.			More.	Less.
			Males.	Females.	Total.		
<i>Munster.</i>						Pr. ct.	Pr. ct.
Clare co.	286,394	212,440	82,562	83,713	166,275	—	21·7
Cork city	80,720	85,732	36,017	42,875	78,892	—	7·9
„ co., E.R.	773,398	{ 351,815	137,260	143,183	280,443	—	20·2
„ „ W.R.		{ 211,761	88,930	89,231	178,161	—	15·8
Kerry „	293,880	238,254	100,023	101,965	201,988	—	15·2
Limerick city.....	48,391	53,448	19,738	24,888	44,626	—	16·5
„ co.	281,638	208,684	84,417	86,566	170,983	—	18·0
Tipperary „ N.R.	435,553	{ 147,209	53,136	55,330	108,466	—	26·3
„ „ S.R.		{ 184,358	67,737	71,293	139,030	—	24·5
Waterford city	23,216	25,297	10,701	12,519	23,220	—	8·2
„ co.	172,971	138,738	53,592	57,524	111,116	—	19·9
<i>Total</i>	2,396,161	1,857,736	734,113	769,087	1,503,200	—	19·0
<i>Ulster.</i>							
Antrim co.	276,188	251,383	118,142	129,272	247,414	—	1·5
Armagh „	232,393	196,084	90,846	98,536	189,382	—	3·4
Belfast town	75,308	100,301	54,164	65,078	119,242	18·8	—
Carrickfergus co. and town	9,379	8,520	4,200	5,198	9,398	10·3	—
Cavan co.	243,158	174,064	77,473	76,499	153,972	—	11·5
Donegal co.	296,448	255,158	115,545	121,314	236,859	—	7·1
Down „	361,446	320,817	140,868	158,998	299,866	—	6·5
Fermanagh co.	156,481	116,047	51,638	53,734	105,372	—	9·2
Londonderry co.	222,174	192,022	88,518	95,619	184,137	—	4·1
Monaghan „	200,442	141,823	61,834	64,506	126,340	—	10·9
Tyrone „	312,956	255,661	116,908	121,518	238,426	—	6·7
<i>Total</i>	2,386,373	2,011,880	920,136	990,272	1,910,408	—	5·0
<i>Connaught.</i>							
Galway co.	422,923	297,897	125,865	128,391	254,256	—	14·6
„ town	17,275	23,787	7,897	8,889	16,786	—	29·4
Leitrim co.	155,297	111,897	52,445	52,170	104,615	—	6·5
Mayo „	388,887	274,499	125,399	129,050	254,449	—	7·3
Roscommon co.	253,591	173,436	78,836	77,318	156,154	—	9·9
Sligo „	180,886	128,515	61,897	63,182	125,079	—	2·6
<i>Total</i>	1,418,859	1,010,031	452,339	459,000	911,339	—	9·7
IRELAND	8,175,124	6,552,385	2,804,961	2,959,582	5,764,543	—	12·0

TABLE II.—RELIGIOUS PROFESSION in each Province, County, City, and certain Corporate Towns of Ireland in 1861.

1	2	3	4	5	6	7	8
Provinces, Counties, Cities, and Towns.	Total Persons, 1861.	Persons of the following Religious Professions.					
		Established Church.	Roman Catholic.	Presby- terians.	Metho- dists.	Inde- pendents	All Others.
Leinster.							
Carlow county	57,232	6,241	50,613	107	182	1	88
Drogheda town	14,730	1,023	13,340	211	140	2	14
Dublin city, M.	249,733	46,922	194,601	4,454	1,837	374	1,545
„ suburbs	46,231	15,248	28,489	1,110	520	183	681
„ county	106,058	19,078	84,524	1,042	416	377	621
Kildare	84,930	6,832	77,114	581	288	7	108
Kilkenny city	14,081	1,084	12,854	85	31	1	26
„ county	109,476	4,597	104,667	94	62	1	55
King's „	88,491	8,282	79,306	256	415	11	221
Longford „	71,592	6,114	64,810	529	100	6	33
Louth „	75,140	4,975	69,100	908	137	2	18
Meath „	110,609	6,584	103,489	410	105	6	15
Queen's „	90,750	9,854	79,959	247	481	18	191
Westmeath „	90,856	6,309	83,813	323	175	1	235
Wexford „	143,594	12,840	129,824	283	445	28	174
Wicklow „	86,093	15,251	69,750	271	716	14	91
Total	1,439,596	171,234	1,246,253	10,911	6,050	1,032	4,116
Munster.							
Clare county	166,275	3,371	162,572	235	75	6	16
Cork city	78,892	9,574	67,092	825	886	107	408
„ county, E.R.	280,443	16,374	262,587	711	377	97	297
„ „ W.R.	178,161	14,583	162,002	235	1,255	24	62
Kerry „	201,988	6,211	195,295	252	174	15	41
Limerick city	44,626	3,934	39,689	366	325	164	148
„ county	170,983	5,606	164,878	139	312	29	19
Tipperary „ N.R.	108,466	6,892	100,913	163	408	2	88
„ „ S.R.	139,030	4,970	133,324	288	186	9	253
Waterford city	23,220	1,912	20,465	236	265	39	303
„ county	111,116	3,265	107,354	235	49	3	210
Total	1,503,200	76,692	1,416,171	3,685	4,312	495	1,845
Ulster.							
Antrim county	247,414	45,087	61,220	133,440	3,919	696	3,052
Armagh „	189,382	58,643	92,100	30,988	6,105	775	771
Belfast town	119,242	29,242	40,690	43,046	4,857	354	1,053
Carrickfergus county and town	9,398	1,827	1,052	5,562	289	349	319
Cavan county	153,972	23,187	123,825	5,536	1,319	8	97
Donegal „	236,859	29,942	177,560	26,694	2,230	110	323
Down „	299,866	60,516	97,234	136,013	4,219	127	1,757
Fermanagh county	105,372	40,676	59,490	1,857	3,336	—	13
Londonderry „	184,137	30,871	83,428	66,014	1,132	527	2,165
Monaghan „	126,340	17,706	92,714	15,405	439	6	70
Tyrone „	238,426	52,433	134,374	46,816	3,715	328	760
Total	1,910,408	390,130	963,687	511,371	31,560	3,280	10,380

TABLE II.—RELIGIOUS PROFESSION in each Province, &c.—*Contd.*

1	2	3	4	5	6	7	8
Provinces, Counties, Cities, and Towns.	Total Persons, 1861.	Persons of the following Religious Persuasions.					
		Established Church.	Roman Catholics.	Presby- terians.	Metho- dists.	Inde- pendents.	All Others.
<i>Connaught.</i>							
Galway county	254,256	7,534	245,950	397	279	33	63
„ town	16,786	786	15,554	165	127	42	112
Leitrim county	104,615	9,516	93,844	351	877	—	27
Mayo „	254,449	6,937	246,108	933	413	2	56
Roscommon „	156,154	5,227	150,490	252	146	15	24
Sligo „	125,079	10,605	112,526	927	768	163	90
<i>Total</i>	911,339	40,605	864,472	3,025	2,610	255	372
IRELAND	5,764,543	678,661	4,490,583	528,992	44,532	5,062	16,713

TABLE III.—*Number of INHABITED HOUSES in each PROVINCE of IRELAND, in 1841, 1851, and 1861 ; with the Increase or Decrease per cent. between 1851 and 1861.*

PROVINCES.	Inhabited Houses.			1861 more or less than 1851.	
	1841.	1851.	1861.	More.	Less.
Leinster.....	306,459	258,012	236,472	Pr. cnt. —	Pr. cnt. 8·35
Munster.....	364,637	267,073	242,872	—	9·06
Ulster	414,551	351,885	351,515	—	0·09
Connaught.....	243,192	169,253	162,374	—	4·06
<i>Total (IRELAND)</i>	1,328,839	1,046,223	993,233	—	5·06

TABLE IV.—*Number of FAMILIES in each PROVINCE of IRELAND, in 1841, 1851, and 1861 ; with the Increase or Decrease per cent. between 1851 and 1861.*

PROVINCES.	Number of Families.			1861 more or less than 1851.	
	1841.	1851.	1861.	More.	Less.
Leinster.....	362,134	320,079	295,465	Pr. cnt. —	Pr. cnt. 7·69
Munster.....	415,154	319,551	282,695	—	11·53
Ulster	439,805	381,070	379,053	—	0·53
Connaught.....	255,694	183,619	172,005	—	6·32
<i>Total (IRELAND)</i>	1,472,787	1,204,319	1,129,218	—	6·24

MISCELLANEA.

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I.—Changes in the Agricultural Population, 1830-61; Illustrations of the Census Returns.

FROM the *Economist*, 22nd June, 1861, we obtain the following interesting article in elucidation of the Census Returns relative to the Agricultural Population:—

"The Census just completed discloses the fact, that in many of our Agricultural districts there has been a diminution of the numbers of the people. And this is coincident with a general improvement in husbandry, which has required an increased number of workmen in the business of agriculture.

"It will probably require a careful and precise analysis of the Census reports when published in a complete form to understand and explain this apparent anomaly. Yet it may well be that the numbers may be less in the purely agricultural counties, while improvement and a brisk employment of labourers may be going on. The demand for labour which has arisen of late years in all the great Towns and in the Manufacturing districts has taken off large numbers of lads and young men from the rural districts, and in fact the hands are less than formerly. But until recently, agricultural labourers being badly paid, their labour was less effective than it has become, and is becoming, under the more active demand. The discussion upon agricultural labour which took place at a recent meeting of the *London Farmer's Club* disclosed the great extent in which *piece work* is being adopted in husbandry, and the benefits that system of employment confers on both master and man. Circumstances have drawn forth the force which slumbered in the peasant's arm; and the result has been that, though labourers are fewer, they have done more work than heretofore.

"There have not been wanting persons who have ascribed the diminution of population in certain of the agricultural districts to the *enlargement of farms*, but every one acquainted with the systems of management on our larger and smaller farms is well aware that a large farm usually employs more labourers in proportion to its extent than a small one. The subject has been taken up by the *United East Lothian Agricultural Club*, where, at a recent meeting, a discussion took place on '*An Inquiry into the Decrease of Population in some of the Agricultural Districts as apparently indicated by the Census (1861) Returns.*' Mr. Hope, of Fenton, Barns, presided, and having strikingly analysed the returns of his own district said he was satisfied, 'from practical experience, that at all events in East Lothian, the number of people employed on the land is now much larger than formerly, and also that their employment is more steady both summer and winter.'

He had examined the returns for the parish of Dirleton, in which he farms, as divided into districts for the Census of 1851 and 1861, and also the gross returns of previous enumerations, with the detailed returns from every hamlet for 1821, and he stated the results with the inferences he drew from them.

"In 1811, the total population of *Dirleton* was 1,211 persons; in 1831 the number had increased during the twenty years to 1,384; but during that period there were only an increase of three occupiers and two separate dwelling-houses. From 1831 to 1851, another period of twenty years, there was an increase of occupiers or families by 65, and separate dwelling-houses by 53, the increase of persons being 250. The additional dwellings erected from 1831 to 1851 form a striking contrast to the *two* dwellings only which had been erected during the previous *twenty years*. During the last ten years, from 1851 to 1861, there is one additional occupier in Dirleton parish, but the dwelling-houses have *diminished* by 10 and the population by 94, or from 1,634 to 1,540.

"How, then, was this diminution to be accounted for? The parish was divided into five districts. In one of these, *exclusively agricultural*, there had been no change, neither increase or decrease, between 1851 and 1861. In another there had been an increase of two persons. In a third a decrease of 29; in a fourth a decrease of 20; and in the fifth a decrease of 47. The districts in which the *decreases* had occurred were the villages; and bondagers being no longer required in the districts, extra hands required at harvest being supplied by Highlanders and Irish, who come into East Lothian for the season, there was not the same need for married labourers. It appears also, that in Gullane, a village, there are 15 houses unoccupied. Mr. Hope also said, 'I rather suspect that there has been a change in the population of the county; that the agricultural districts have become *more strictly agricultural* by the removal of tradesmen and others not employed in agriculture to the Towns. Taking the village of *West Fenton* for instance, which I know well, I find that in 1821, it contained 191 persons, of which 33 families, numbering 150, were employed in agriculture, and nine families, including 41 persons, depended on trades, &c. Now there are only two families, including 10 persons, engaged in trade.' Now if this sort of change is going on throughout the agricultural districts of the kingdom, as is probably the case, it will account, in part, for the diminished population in those districts.

"There is no doubt that farmers of late years have obtained their implements from the great manufacturing firms, and less from their own immediate neighbourhood than they once did; and increased facilities of intercourse have led them to go to the larger and better markets for many of the commodities they require, both in business and domestic uses. To return; Mr. Hope said, 'In looking over the returns from 1811 till this date, the most noticeable feature is the almost stationary state of the population during the first twenty years, and this is what might easily be inferred from the history of agriculture during that period. During the first thirty years of the present century there was no change in the rotation of crops; farmers were only distinguished by their more or less skillful conducting of the ordinary labours of the farm. The cutting off of springs in the land and the application of lime were the principal improvements effected.

"I have a vivid recollection of the farming and the state of the agricultural labourers in 1831. At that period it was the constant subject of discussion how employment was to be found for the rural population. Spade husbandry was advocated, and trenching the soil was extensively practised even in this country. You could, at the shortest notice, obtain labourers by the hundred at 8s. or 9s. per week. But fortunately better times were in store for all connected with land. Smith, of Deanston, by his advocacy of thorough drainage, and the introduction of tiles for that purpose, created a new era in the farming of the kingdom. It was between 1831 and 1841 that this change occurred, and turnips and other green crops were substituted for plain fallows. Labourers more readily found employment at better wages. More houses were built, and the population rapidly increased. More lately, from the facilities afforded by the use of artificial manures, the cultivation of the remunerative potato has wonderfully increased; while from

the improved trade and increased wealth of the country, the profits obtained from feeding sheep and cattle are very different since I first recollect, and have steadily added to the wealth of the farming community.' This indicates the change that has taken place in the well-farmed county of East Lothian, and more or less elsewhere. And Mr. Hope justly added, that more attention should be paid to the *dwellings* and *comforts* of the rural labourers by the landlords and farmers, whose rents and profits had thus been enhanced. Mr. Scott Skirving entirely agreed with Mr. Hope that improved agriculture requires more human beings to perform the labours of the farm, and that totally irrespective of all improvements in machinery. He attributed to *emigration of labourers* great part of the decrease in agricultural districts. Mr. Durie said, that in his own district of the country, which was purely agricultural, the population had increased 13 per cent. during the last ten years, 'which,' he said, 'shows that a population entirely dependent upon itself for the sources of labour, there being no manufacture in the district, does not decrease. It is, therefore, a fallacy to say that the rural districts require less agricultural population than they did, and it is also a fallacy to say that they have less, because at present they have *more effective working people* than ever they had, in consequence of there being more men and women required. In conclusion, it was unanimously agreed, 'That it is the opinion of this Club that the apparent decrease of the population in the agricultural districts is caused principally by the limited cottage accommodation of most farms, and also by the removal of various classes of tradesmen into town.' This will, perhaps, furnish a clue to the examination of other rural districts in which there has been a decrease of population."

II.—*Scotch and English Farm Labourers, 1861.*

We obtain the following statement from the *Aberdeen Free Press* of 14th June, 1861:—

"An interesting series of papers on 'the Agricultural Labourer' have recently appeared in the *Gardeners' Chronicle*. The writer, 'G. S.' (Mr. Geo. Singer), is a native of this county, well acquainted with the state of the agricultural labouring population in Aberdeenshire as it existed a dozen years ago—and we daresay very few will say that there is much of improvement since then. He is also practically acquainted with the state of matters in West Sussex and Dorset. Of the Sussex labourer Mr. Singer says:—

" 'So far as I can learn, after several years' residence in the county, I believe men are nowhere more comfortable, better cared for, or treated with more respect and kindness in any part of the kingdom, than they are in Sussex. Let us first examine their homes: perhaps the best locality is the neighbourhood of Chichester. We find many such 'cottage homes' as cannot and need not be surpassed anywhere; most of the cottages have three bedrooms, two bedrooms and wash-house downstairs, the latter including oven and copper, and they are fitted up with good cottage ranges, the whole by the landlords, so that no grates or coppers have to be removed to hurt the building, and the tenant finds everything arranged comfortably for him at once.

" 'Upon the estates near Chichester, especially the Goodwood and Oakwood estates, there are nearly as many cottages as are required, and all of the best description, with full accommodation for all the comforts and decencies of life, and none are allowed to take in lodgers without the proprietor's consent, which is never withheld without good reason, and until the occupants acquire a higher appreciation of proper domestic arrangements this restraint is necessary. For, here as elsewhere, they have so long been huddled up in small untidy cottages that it is some time before they feel the need of such extensive accommodation. The rent that they have to pay is generally 2s. a-week, and carters and shepherds have as extra wages their houses rent free.

“ ‘ Respecting their education we cannot speak favourably ; in this they are considerably behind Dorset, for what reason I cannot tell, but such is the case. Probably from one-half to three-fourths of those grown up can neither read nor write, and this gives them a dull listless manner, but the defect is in a fair way of being remedied. We have schools in every village, not certainly of a high standard, but such as will set the rising generation far before their parents, and give them a pleasure that has been denied to the former.

“ ‘ Wages for the past few years have been from 11s. to 12s. a-week for able-bodied men ; piece-work is not paid higher (with the exception of harvest-work) than in other places, so that when employed in it they do not earn much more, perhaps about 1s.’

“ ‘ After stating that the general character of the Sussex labourer is steady and sober, and that disagreements between master and servant are rare—more so than in Dorset—Mr. Singer goes on to contrast the condition of the agricultural labourer in the three counties—in Sussex we may observe the general hours of work are from 6½ A.M., to 12, then an hour for dinner, and again work to 5 P.M. Mr. S. puts the different points on which a contrast is made under different headings, and his remarks, especially on the lack of cottage accommodation in this county, deserve attention as the conclusions of an impartial and intelligent observer.

“ ‘ *Cottage Accommodation.*—Aberdeenshire may be put at little and that very bad. Dorset not good but improving rapidly. Sussex not extensive enough, many farms having too few, some not so good as they ought to be, but many very good, and altogether before the other two counties.

“ ‘ *Education.*—In Aberdeenshire easy to obtain, from unfavourable circumstances difficult to retain or turn to good account, not improving much. Dorset far behind, but advancing rapidly and bidding fair to make up for lost time during the present generation, and though not so good as that obtained in Aberdeenshire, yet in the homes of the labourer may be turned to a better account than is possible in the dens in which the Aberdonians are lodged.

“ ‘ *Condition.*—As regards comfort, Aberdeenshire has not much, though wages are good. Dorset, very little in some parts, and this often arises from too early and thoughtless marriages. Sussex, better in every respect, though men with large families have not so much as one thinks they ought to have.

“ ‘ *Wages.*—Aberdeenshire, from 15l. to 20l. a-year, with board for men ; women, from 5l. to 8l., with board, and hard work for it. Dorset, men with every item added, about 12s. for leading men, 11s. for others, a-week ; women, 8d. and 10d. a-day of eight hours ; boys and young men rather badly paid in proportion. Sussex, men from 12s. to 14s. per week for a day of nine and a-half hours ; women, 10d. for seven hours ; boys and young men fairly paid in proportion.

“ ‘ *Character.*—This requires a little explanation. But we may safely put the Aberdonians first, notwithstanding their sad statistics of illegitimacy, which ought to be put to the account of the necessity they are under to remain single, as there are no homes for them. No class would present a more favourable account if placed in such a wretched position, and for upright conduct towards their employers they stand high, and few of them are ever found before the courts of justice. In Dorset their character does not perhaps stand so high, but still there is a cause for this, and we think it is that the younger hands are badly paid, and turned off whenever a chance occurs of being able to do without them, and thus at a susceptible age are at liberty to roam about, and thus acquire bad habits that may cling to them more or less through life. And as education has so long been neglected among them, it is not to be wondered at that the magistrates have sometimes a little to do among them. But as their homes are rapidly improving, and they are being better educated, we shall find them improve before many years. The character of the Sussex labourer stands high, and that because the causes of deterioration common in Dorset are to a great extent wanting. And we have no doubt that it will improve speedily.’ ”

III.—*Importation of Wool, 1843-60.*

THE quantity of Wool imported in 1860 exceeded the receipts of any previous twelve months, as the following figures will show :—

1860	148 mln. lbs.	1851	83 mln. lbs.
'59	133 "	'50	74 "
'58	127 "	'49	77 "
'57	130 "	'48	71 "
'56	116 "	'47	62 "
1855	99 "	1846	65 "
'54	106 "	'45	77 "
'53	119 "	'44	66 "
'52	94 "	'43	49 "

The British pastoral colonies have more than grappled with the ever-growing wants of the home market, supplies having come forward in the following proportions :—

Year.	Europe.	British Colonies.	Other Countries.	Year.	Europe.	British Colonies.	Other Countries.
	Pr. cnt.	Pr. cnt.	Pr. cnt.		Pr. cnt.	Pr. cnt.	Pr. cnt.
1860	26	65	9	1851	28	62	10
'59	30	61	9	'50	24	65	11
'58	22	67	11	'49	31	60	9
'57	23	64	13	'48	30	57	13
'56	20	70	10	'47	34	51	15
1855	14	75	11	1846	43	45	12
'54	25	66	9	'45	48	41	11
'53	32	56	12	'44	58	34	8
'52	28	61	11	'43	47	43	10

The value of the Wool imported was :—

	£		£
1860	11 mlns.	1856	9 mlns.
'59	10 "	'55	6 "
'58	9 "	'54	6 "
'57	10 "		

IV.—*Grain Imports in First Four Months of 1861-60-59.*

WE obtain the following paragraphs from the *Times* of — June, 1861 :—

" *Agricultural Statistics.*—The statistics of our grain importations (1861) since the beginning of the year, show the remarkable extent to which the failure of last year's harvest must have been underrated, while at the same time the comparative ease with which they have been paid for demonstrates how intrinsically slight must have been the effect of the American crisis in disturbing our commerce or causing pressure in our money-market. It may be estimated that from the

1st of January (1861) to the present time (June, 1861) we have disbursed about 20,000,000*l.* for wheat, flour, and other foreign grain, against a total of little more than 5,000,000*l.* in the corresponding period of 1860; and when it is borne in mind that in the same interval we have supplied India with a direct loan of 3,000,000*l.*, and that the national expenditure has been on the highest scale, the fact that the stock of bullion in the Bank of England, even according to the unfavourable statement published recently, is still exactly equal to the average amount held in the month of January, will appear no less striking than satisfactory. It is evident, indeed, that but for the drain for public works in India, which has now been kept up for so many years, the discount market would probably have been free from extraordinary pressure.

"Next to the total quantity and value of our *grain imports*, the question of most importance is as to the proportion in which these supplies have been furnished to us from the respective countries of the world. In this respect the chief change has, of course, been in the quantities from America and France. Annexed is a statement of our total importations in the *first four months* of each of the last three years, and the percentage from each country:—

WHEAT.

	1859.	1860.	1861.
	Qrs.	Qrs.	Qrs.
<i>Total importation</i>	1,050,366	560,468	2,464,983
<i>From</i>			
Russia	18 pr. cnt.	32½ pr. cnt.	16½ pr. cnt.
Prussia	4½ "	16½ "	11 "
Denmark	6½ "	13½ "	4½ "
Mecklenburg	2½ "	9½ "	2 "
Hanse Towns	½ "	3½ "	4½ "
France	29½ "	4½ "	7 "
Turkey, Wall., and Mold.	3 "	5½ "	7½ "
Egypt	28½ "	3½ "	5½ "
United States	½ "	7 "	30½ "
Other countries	6½ "	4½ "	11 "
	100 "	100 "	100 "

FLOUR.

	1859.	1860.	1861.
	Cwts.	Cwts.	Cwts.
<i>Total importation</i>	1,069,661	645,145	2,541,903
<i>From</i>			
Hanse Towns	6½ pr. cnt.	15½ pr. cnt.	4 pr. cnt.
France	90 "	49 "	16 "
United States	2 "	32½ "	65 "
Other countries	1½ "	3 "	15 "
	100 "	100 "	100 "

"Thus, while in 1859 *France* supplied us with 29½ per cent. of our *wheat* importations, and the United States sent us no appreciable quantity whatever

France has now sent us only 7 per cent., while from the United States we have drawn 30½ per cent. With *flour* the change has been still more remarkable, since the French supply in 1859 was 80 per cent. of the whole, the United States figuring only for 2 per cent., while this year we have had only 16 per cent. from France and from the United States the quantity has been 65 per cent.

"It is to be remarked, however, that during April, 1861, there was, as had been anticipated, a diminution of the preponderance of arrivals of American wheat. The supply in that month was 15 per cent. from America, and 26 per cent. from Prussia, a consequence doubtless of the check to traffic and the rise in freights caused by the civil war, which some persons have been disposed to assume would, on the contrary, cause us to be deluged with increased supplies."

V.—The Ordnance Survey.

THE progress of the Ordnance Survey was greatly retarded during 1860, not only by the wet summer and severe winter, but by the employment of 390 surveyors and draughtsmen upon surveys and plans connected with the defence of the country. But the great survey, on the scale of 25 inches to a mile, is being gradually prosecuted in Scotland and in the northern counties of England; and Colonel Sir H. James suggests, in his report for the year, that it should be at once decided whether the cadastral survey is to be extended to the rest of England, so that in that case it may be undertaken while we have an admirably trained body of men for the performance of the work. It is considered that if we are to have in England, as in Ireland, a Landed Estates Court to give facilities for the transfer and registration of property, an accurate survey will be of much importance. The cost of completing this great work was estimated last year at not exceeding 1,450,000*l.*, and likely to be less.

Plans illustrating the movements of the allied forces in China have been published by this department, the topographical department of the War Office, and copies sent to all the regiments in the service. Returns of the equipment of an army in the field have been commenced; they are intended to comprise the number, price, and weight of every article necessary for the supply of bodies of troops; they will be tabulated, and accompanied by drawings of the several articles.

A work containing returns of the strength, organization, equipment, &c., of the armies of Europe, has been published in three volumes. The publication of *Domesday Book* by means of photozincography is intended to be continued county by county.

VI.—British and Foreign Shipping.

THE entrances and clearances of shipping at ports in the United Kingdom were last year larger than in any previous twelvemonth, the total entrances with cargoes having been 10,064,981 tons, while the total clearances were 10,782,937 tons. In 1843 the *British tonnage* which entered with cargoes was 2,919,528 tons, and the *foreign* 1,005,894 tons; in 1848 the *British* tonnage had increased to 4,020,415 tons, and the *foreign* to 1,559,046 tons, showing an advance of 38 per cent. in the former and 55 per cent. in the latter; in 1854 the British entrances had further increased to 4,789,986 tons, while the foreign, advancing still more rapidly, had reached an aggregate of 3,109,756 tons, showing an increase of 18 per cent. in the former, and 99 per cent. in the latter; and in 1860 the British entrances were 5,760,537 tons, and the foreign 4,294,444 tons, showing an increase of 7 per cent. in the former and 38 per cent. in the latter.

Comparing 1860 with 1843, the *British* entrances show a general advance of 97 per cent., and the *foreign* entrances an advance of no less than 329 per cent.; the actual augmentation of tonnage being—British, 2,841,009 tons; and foreign, 3,288,550 tons.

The *clearances outwards* next invite attention. In 1843 the British clearances with cargoes amounted to 2,727,306 tons, and the foreign clearances to 1,026,063 tons; and in 1848 the British total had increased to 3,553,777 tons, and the foreign to 1,497,460 tons, showing an advance of 30 per cent. in the former and 46 per cent. in the latter; in 1854 the British clearances were 4,683,654 tons, and the foreign 3,186,882 tons, showing an advance of 32 per cent. in the former, and 113 per cent. in the latter; and in 1860 the British total was 6,358,917 tons, and the foreign 4,424,020 tons, showing an advance of 36 per cent. in the former, and 39 per cent. in the latter. Comparing 1860 with 1843, the British clearances show a general advance of 133 per cent., and the foreign clearances an advance of 333 per cent., the actual augmentation being—British, 3,631,611 tons; and foreign, 3,397,957 tons.

The yearly relative share of business enjoyed by British and foreign shipping since 1843—as shown by the tonnage entered and cleared respectively—was, therefore, as follows:—

Years.	British.	Foreign.	Years.	British.	Foreign.
1843.....	73.5 pr. cent.	26.5 pr. cent.	1852	64.1 pr. cent.	35.9 pr. cent.
'44.....	71.9 "	28.1 "	'53	58.9 "	41.1 "
'45.....	70.9 "	29.1 "	'54	60.1 "	39.9 "
'46.....	70.7 "	29.3 "	'55	59.9 "	40.1 "
'47.....	68.8 "	31.2 "	'56	61.3 "	38.7 "
1848.....	71.2 "	28.8 "	1857	60.9 "	39.1 "
'49.....	70.9 "	29.1 "	'58	59.8 "	40.2 "
'50.....	66.8 "	33.2 "	'59	60.1 "	39.9 "
'51.....	63.3 "	36.7 "	'60	58.1 "	41.9 "

British shipping seems last year to have lost ground proportionately to the extent of 2 per cent., but this is due to the relatively more rapid advance of foreign shipping, the actual clearances in British ships exhibiting last year an increase of 136,171 tons, and the actual entrances an increase of 368,612 tons, as compared with 1859.

The *general shipping trade* of the empire has been nearly multiplied *threefold* since 1843, the total entrances and clearances in that year having been 7,678,791 tons, while in 1860 they were 20,837,918 tons.

The British tonnage which entered *in ballast* only was 625,818 tons in 1843, and 1,128,472 in 1860; and the foreign tonnage which entered in a similar manner was 296,066 tons in 1843, and 989,332 tons in 1860. The British clearances in ballast comprised 908,527 tons in 1843, and 666,997 tons in 1860; the foreign tonnage which cleared in a similar manner was 315,870 tons in 1843, and 1,066,573 tons in 1860. In 1859 the British entrances in ballast were 1,193,187 tons, and the clearances in ballast 503,985 tons, the foreign entrances and clearance, being 988,092 tons and 934,389 tons respectively. The unemployed British tonnage which entered our ports last year was consequently 64,715 tons less than in 1859, and the unemployed foreign tonnage also showed a diminution of 51,240 tons; the unemployed British tonnage which cleared out last year was 163,012 tons less than in 1859, while the unemployed foreign tonnage which cleared out in the same period was 132,184 tons more than in 1859.

These figures refer to both sailing and *steam* ships, but it is with the latter that

British interests have made the greatest advance, and hence, probably, the outcry made from time to time by proprietors of ordinary shipping. An analysis of this part of the subject must, however, be given in a future paragraph.

VII.—Public Revenue and Expenditure.

THE following tables analyze, with some minuteness, the various sources from which the national *revenue* has been derived, and the various channels through which the national *expenditure* has flowed, since 1843. The abbreviations in the first table refer respectively to Customs, Excise, Stamps, Taxes, Income Tax, Post Office, and Miscellaneous items, and the figures appended under the various heads show their proportionate percentage in each year :—

Year.	Cus.	Exc.	St. and Ta.	Inc. Ta.	P. O. and M.	Year.	Cus.	Exc.	St. and Ta.	Inc. Ta.	P. O. and M.
	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.		P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
1843...	39·9	24·5	21·1	9·9	4·6	1852...	39·1	27·9	19·0	10·3	3·7
'44.....	41·7	24·6	20·9	9·6	3·2	'53....	38·4	28·2	18·6	10·3	4·5
'45.....	38·1	25·8	22·4	9·5	4·2	'54....	36·6	28·4	17·7	13·1	4·0
'46.....	38·3	26·0	21·8	10·1	3·8	'55....	33·1	25·8	15·4	21·6	4·1
'47.....	38·8	25·0	22·9	10·6	2·7	'56....	33·0	25·5	14·9	23·1	3·5
1848....	39·3	26·4	20·5	10·1	3·7	1857....	32·2	25·3	15·3	22·4	3·8
'49.....	39·0	26·4	21·1	10·3	3·2	'58....	37·2	27·6	17·4	11·9	5·9
'50.....	38·7	27·0	20·7	10·2	3·4	'59....	38·5	29·4	17·5	9·5	5·1
'51.....	39·5	27·5	19·1	10·2	3·7	'60....	32·6	26·9	16·0	18·8	5·7

A similar calculation applied to the expenditure gives the following results. The abbreviation "Na. Debt," it should be premised, comprises the charges incurred for the interest and management of the National Debt, funded and unfunded. Under the head of the Civil List civil charges of all kinds are also included :—

Year.	Na. Debt.	Civil List.	Army.	Navy.	Year.	Na. Debt.	Civil List.	Army.	Navy.
	Pr. cnt.	Pr. cnt.	Pr. cnt.	Pr. cnt.		Pr. cnt.	Pr. cnt.	Pr. cnt.	Pr. cnt.
1843.....	57·3	14·3	15·5	12·9	1852.....	55·0	13·2	18·7	13·1
'44.....	60·2	12·2	16·0	11·5	'53.....	54·3	13·8	18·9	13·0
'45.....	57·3	10·8	18·1	13·8	'54.....	46·3	12·7	20·7	20·3
'46.....	55·1	11·8	17·8	15·3	'55.....	32·7	10·0	34·8	22·5
'47.....	51·6	14·5	19·2	14·7	'56.....	36·7	10·7	32·1	20·1
1848.....	52·8	14·7	17·9	14·6	1857.....	46·5	14·9	21·7	16·9
'49.....	55·7	13·2	17·5	13·6	'58.....	47·4	15·0	21·1	16·5
'50.....	60·0	13·4	17·8	12·8	'59.....	44·5	14·8	23·3	17·4
'51.....	56·6	13·9	17·6	11·9	'60.....	39·4	19·9	25·6	19·1

The tables illustrate two patent facts,—first the growth of direct taxation, and secondly, the state of affairs which has entailed upon us such heavy additional expenses for defensive purposes.

VIII.—*Census of Crime.*

THE commitments for trial for indictable offences are commonly taken as a measure of the amount of crime, and the year 1860 has no reason to shrink from this test, for the *commitments in England and Wales* fell from 16,674 in 1859 to 15,999 in 1860. But since the Criminal Justice Act came into operation in 1855, transferring a number of cases to the summary jurisdiction, the commitments have given a more imperfect idea of the prevalence of crime. In 1860 upwards of 80,000 charges of stealing or attempting to steal, were disposed of by the magistrates. A better test may be found probably in the number of *offenders sentenced to gaol* by courts and magistrates; and the following short table, made up on that principle, shows the continued decrease of crime :—

	1856.	1857.	1858.	1859.	1860.
Sentenced on indictments	14,734	15,307	13,246	12,470	12,068
Sentenced to gaol by magistrates .	77,712	86,795	83,128	74,769	70,151
	92,446	102,102	96,374	87,239	82,219

The capital convictions in 1860 were only forty-eight, the smallest number yet recorded. The extreme penalty of the law is virtually confined to murder, no execution having taken place for any other crime since 1841. The case which occurred in that year was for an attempt to murder, where life was seriously endangered. The average of convictions for murder in the last ten years has been seventeen, and that was the exact number in 1860. In five cases the punishment was commuted to one of penal servitude; in twelve the sentence was inflicted. It is only in these cases that we have in our statistical returns any attempt to tabulate "motives to crime." Of these murders, five are described as being for the sake of robbery, two from jealousy, one from rejected love, two from hatred, one from excitement by drink, and in one instance no motive is assigned.

IX.—*The Subscription for the £6,000,000 of French Railway Obligations, July, 1861.*

THE following statement is from the *Times* City Article of 22nd July, 1861 :—

"It appears that the tenders for the new issue of 6,000,000*l.* French railway obligations have amounted to about 94,000,000*l.*, and that as 2,300,000*l.* of the total to be allotted is to be given to exclusive establishments, whose subscriptions cannot be reduced, there is but 3,700,000*l.* for *pro rata* distribution among the remainder—a sum which will enable each applicant to have only about 4 per cent. of the amount asked. This operation is officially described as a great success, which furnishes an imposing manifestation of the power of the country and a proof of the confidence which the Government of the Emperor inspires. If the French people or French statesmen can persuade themselves to such an inference, there is no occasion for any outside observers to disturb the simplicity of the illusion. But, unfortunately, there are persons, even in England, and especially in

high places, so little versed in practical finance as to be likely also to be led away by it. The process, however, is simply analogous to that of throwing a certain sum of money to be scrambled for by a mob. The Government having resolved to make a loan, calculate a price at which it would be sure to command a premium, and offer it, or a certain portion of it, at this price, *pro rata*, to all who will apply and send in a preliminary deposit. As the stock is marketable at 2 or 3 per cent. premium for several days before the date for closing the subscription lists, the number of applicants is, of course, simply limited to the number who can rake up or borrow enough money to pay the deposit on the amount they ask for, and the result is that this vast multitude, after all their pains, get a ridiculous fraction assigned to them, the profit of which, in the great majority of cases, would form but a poor payment for their loss of time. The affair in its effect is exactly as if the Government were to announce that they would issue a million of francs to be divided at the rate of 102 fr. among all who would make tenders. It has captivated some persons as if it were a wonderful discovery, but it involves loss to the Government and demoralization to the people. Loans under such circumstances are always issued at a price below that which would be given by regular contractors, the proper business of the nation at the same time suffers from the excitement, banking disturbance, and waste of time consequent upon the public making deposits upon a hundred millions, when there are only three or four millions of securities to be disposed of, and individuals, from the lowest to the highest, are all encouraged into the arena of stockjobbing, and taught that it is in this sphere, rather than by steady attention to their legitimate avocations, that they can best distinguish themselves as good citizens. It may be questioned if among the engines which can tend to corrupt a country, any could be found more potent than this system of offering bribes to the populace from the Bourse."

X.—Patents.

IN the year 1860 there were 3,196 applications for provisional protection of inventions, and the number of patents actually passed was 2,061; in the other 1,135 cases the applicants did not proceed for their patents within the six months. The number of patents that prove useless is very great. The first 4,000 under the new system were granted in 1852-54, all for fourteen years, but liable to become void unless a stamp duty of 50*l.* were paid at the end of three years, and another of 100*l.* at the end of seven years, and of the whole 4,000, only 1,186 paid the 50*l.* duty at the end of the third year, and only 390 the 100*l.* duty at the end of the seventh year; so that nearly 90 per cent. were allowed to become void by the end of the seventh year. Still, the stamp duties received last year amounted to 108,000*l.* The fees paid to the Attorney and Solicitor-General and their clerks, amounted to no less than 9,621*l.* Abstracts or abridgments of specifications of patents continue to be published, and sold at the cost of printing and paper; the subjects now in the press are—shipbuilding, preparation of fuel and apparatus for its combustion, steam-engines, weaving, photography, bricks and tiles, and spinning. The Patent Office labours under the prevalent complaint—it has no room, it has books for which there are no shelves, and models which it has no opportunity to exhibit. But the fees have annually produced a surplus, which has now accumulated to the extent of 92,000*l.*, so that there is a building fund to begin with.

XI.—*General Results of the Census of 1861 of the United Kingdom, and Progress of the Income Tax Assessments, 1853-60.*

THE following letter from Mr. Hammack, one of the Census Commissioners of England and Wales, addressed to the *Times* on 22nd July last, states concisely the general results of the Census of 1861, just taken.

To this table we append from Parliamentary Paper 592, 1861, a return in a condensed form of the amount of property annually assessed to the Income Tax in the several divisions of the *United Kingdom* during the eight years 1853-60.

The two statements will enable comparisons to be made as regards the proportionate augmentations of numbers and wealth.

The unrevised numbers of the population enumerated at the late Census have already been published in your columns for England and Ireland, and those for Scotland having just been ascertained by the officials at Edinburgh, the result for the entire country may now be stated. The total number of inhabitants of the *United Kingdom*, including the islands in the British seas, may be set down as not less than 29,031,164. Of these 20,061,725 were numbered in England and Wales, 3,061,117 in Scotland, 5,764,543 in Ireland, and 143,779 in the Channel Islands and Isle of Man. The army serving abroad and in Ireland and the navy and merchant seamen absent at sea are not included.

In Ireland an *unparalleled emigration*, continued from the period of the failure of the potato crop in that country, has diminished the population by 787,842 persons, or 12 per cent., exactly the decennial rate of increase in England, since the Census of 1851. According to the returns, 1,230,986 Irish and 823,837 natives of Great Britain emigrated in the decade. Notwithstanding this exodus and other circumstances calculated to retard the rate of increase, such as the Russian war, an epidemic of cholera, the Sepoy mutiny, commercial crises, and the strikes, we have a solid addition of more than a million and a half to the population of the *United Kingdom*—a fact sufficiently significant of the perennial vigour and progress of the country.

Population of the United Kingdom according to the Census of 1861.

	Population enumerated.		Increase in 1861.		Decrease in 1861.	
	1861.	1851.	Persons.	Rate per cent.	Persons.	Rate per cent.
England and Wales ...	20,061,725	17,927,609	2,134,116	12	—	—
Scotland.....	3,061,117	2,888,742	172,375	6	—	—
Ireland	5,764,543	6,552,385	—	—	787,842	12
Islands in the British Seas }	143,779	143,126	653	—	—	—
Total of the United Kingdom }	29,031,164	27,511,862	2,307,144		787,842	
			Net increase 1,519,302, or 6 per cent.			

(A).—ENGLAND and WALES.—*Property Assessed under the several Schedules.*
Stated in millions sterling.

Years ending 5th April.	Schedules.					Total Amount of Property Assessed.
	A.	B.	C.	D.	E.	
	£	£	£	£	£	£
1853.....	96,1	41,1	26,7	59,5	11,0	234,7
'54.....	99,2	41,1	26,8	76,2	12,8	256,3
'55.....	100,8	41,0	24,7	74,6	13,5	254,8
'56.....	101,9	41,0	24,4	72,5	15,5	255,5
1857.....	103,6	41,1	26,9	73,5	15,8	261,0
'58.....	109,9	42,7	28,0	77,5	16,8	274,7
'59.....	110,9	42,7	27,9	77,4	16,9	275,9
'60.....	112,0	42,9	28,3	81,9	17,4	282,7

[The 00,000's at unit end are omitted, thus 99,1 represents 99,100,000.]

(B).—ENGLAND and WALES.—*Amount of Property Assessed under Schedule (A.)*

Heads of Assessment.	Years ending 5th April.							
	1853.	1854.	1855.	1856.	1857.	1858.	1859.	1860.
	£	£	£	£	£	£	£	£
Lands	41,086,	41,085,	41,236,	41,048,	41,176,	42,684,	42,701,	42,940,
Messuages	40,621,	42,828,	43,425,	44,196,	44,994,	47,438,	48,138,	48,779,
Tithes	363,	344,	360,	366,	367,	209,	210,	54,
Manors	168,	172,	174,	186,	191,	203,	207,	212,
Fines	257,	268,	295,	304,	255,	218,	212,	225,
Quarries	270,	267,	272,	274,	277,	366,	372,	366,
Mines	2,061,	2,504,	2,588,	2,657,	2,694,	3,485,	3,548,	3,658,
Iron Works.....	660,	861,	890,	915,	983,	1,249,	1,213,	1,134,
Fisheries	26,	16,	17,	17,	15,	17,	18,	16,
Canals	919,	831,	825,	823,	830,	802,	779,	772,
Railways	7,211,	7,708,	8,291,	8,630,	9,209,	10,450,	10,631,	10,732,
Gas Works	653,	661,	670,	677,	680,	843,	872,	918,
Other Property ...	1,780,	1,632,	1,659,	1,710,	1,798,	1,860,	1,865,	2,088,
General Profits.....	92,	92,	128,	127,	127,	147,	149,	191,
	96,172,	99,274,	100,835,	101,938,	103,603,	109,978,	110,923,	112,082,

[The 000's at unit end are omitted—thus 41,086 represents 41,086,000.]

(C.)—SCOTLAND.—*Property Assessed under the several Schedules.*
Stated in millions sterling.

Years ending 5th April.	Schedules.					Total Amount of Property Assessed.
	A.	B.	C.	D.	E.	
	£	£	£	£	£	£
1853.....	11,0	5,4	—	10,4	,6	27,6
'54.....	11,9	5,6	—	12,1	,7	30,5
'55.....	12,1	5,7	—	11,8	,7	30,5
'56.....	12,4	5,8	—	11,0	,8	30,1
1857.....	12,5	5,9	—	11,1	,9	30,4
'58.....	13,8	6,2	—	8,5	,9	29,5
'59.....	13,8	6,2	—	8,0	,9	29,1
'60.....	13,9	6,2	—	8,6	1,0	29,9

[The 00,000's at unit end are omitted—thus 11,9 represents 11,900,000.]

(D.)—SCOTLAND.—*Amount of Property Assessed under Schedule (A.)*

Heads of Assessment.	Years ending 5th April.							
	1853.	1854.	1855.	1856.	1857.	1858.	1859.	1860.
	£	£	£	£	£	£	£	£
Lands	5,499,	5,687,	5,725,	5,872,	5,932,	6,254,	6,230,	6,231,
Messages	3,847,	4,131,	4,209,	4,239,	4,358,	4,703,	4,842,	4,988,
Tithes	—	—	—	—	—	—	—	—
Manors	—	—	—	—	—	—	—	—
Fines	—	1,	2,	1,	1,	2,	3,	2,
Quarries	44,	47,	50,	45,	43,	49,	47,	47,
Mines	278,	305,	302,	328,	311,	337,	337,	356,
Iron Works	172,	424,	487,	511,	475,	641,	563,	383,
Fisheries	35,	44,	44,	44,	47,	50,	52,	54,
Canals	80,	59,	58,	58,	58,	70,	70,	70,
Railways	664,	823,	839,	898,	891,	1,246,	1,264,	1,299,
Gas Works	108,	118,	119,	114,	104,	112,	117,	122,
Other Property	252,	253,	249,	250,	248,	267,	277,	285,
General Profits.....	44,	49,	56,	62,	70,	73,	78,	79,
	11,028,	11,947,	12,144,	12,428,	12,543,	13,809	13,885,	13,974,

[The 000's at unit end are omitted—thus 5,499 represents 5,499,000.]

(E.)—IRELAND.—*Property Assessed under the several Schedules.*
Stated in millions sterling.

Years ending 5th April.	Schedules.					Total Amount of Property Assessed.
	A.	B.	C.	D.	E.	
	£	£	£	£	£	£
1854.....	11,7	2,6	1,4	4,6	,8	21,3
'55.....	11,8	2,6	1,3	4,7	,9	21,5
'56.....	11,8	2,5	1,3	4,6	,9	21,3
'57.....	11,9	2,5	1,4	4,5	,9	21,4
1858.....	12,8	2,8	1,4	4,7	1,0	22,8
'59.....	12,8	2,7	1,4	4,8	1,1	22,9
'60.....	12,8	2,7	1,3	4,8	1,1	23,0

[The 00,000's at unit end are omitted—thus 11,7 represents 11,700,000.]

In *Ireland* the heads of assessment under Schedule A cannot be distinguished.

XII.—*Transactions of the Dover Penny Bank, 1860-61.*

THE following analysis of the transactions of the Dover Penny Bank, from the 6th July, 1860, to 6th July, 1861, has been taken from an elaborate and interesting return sent to the Society by Mr. Norwood Earle, the Honorary Secretary to the Committee of Management:—

	No.	£	s.	d.
<i>Average balance to the credit of each depositor on 6th July, 1861.....</i>	—	—	6	1
<i>Average number on books from July 6th, 1860, to July 6th, 1861.....</i>	990	39	—	—
<i>Average number in attendance from July 6th, 1860, to July 6th, 1861.....</i>	295	86	—	—
<i>Average number in attendance for purposes of depositing money.....</i>	273	27	—	—
<i>Average number in attendance for purposes of withdrawing money.....</i>	22	58	—	—
<i>Gross average amount received each night from depositors.....</i>	—	10	16	1
“ “ <i>withdrawn each night by depositors.....</i>	—	11	1	4
<i>Average amount paid in by each depositor each night.....</i>	—	—	—	9
“ “ <i>to each withdrawer each night.....</i>	—	—	10	—
<i>Total number of additional depositors from July, 1860, to July, 1861.....</i>	700	—	—	—
<i>Average number of additional depositors each night.....</i>	13	72	—	—
<i>Average cost of keeping each depositor's account for the year.....</i>	—	—	—	4

XIII.—*The Balance of Trade.*

THE excess of our *Imports* over our *Exports* during the last seven years is shown by an official return to have been as follows :—

Year.	Imports.	Exports.	Excess of Imports.
	£	£	£
1854.....	152,889,053	115,821,092	36,567,961
'55.....	143,542,850	116,691,300	26,851,550
'56.....	172,544,154	139,220,353	33,323,801
1857.....	187,844,441	146,174,301	41,670,140
'58.....	164,583,832	139,782,779	24,801,053
'59.....	179,182,355	155,692,973	23,489,380
'60.....	210,648,633	165,670,653	44,977,990

The *exports of gold and silver bullion and specie* from the United Kingdom in the same period were :—

Year.	Gold.	Silver.	Total.
	£	£	£
1854.....	16,552,845	6,033,723	22,586,568
'55.....	11,847,213	6,980,965	18,828,178
'56.....	12,038,299	12,813,498	24,851,797
1857.....	15,061,500	18,505,468	33,566,968
'58.....	12,567,040	7,061,836	19,628,876
'59.....	18,081,139	17,607,664	35,688,803
'60.....	15,641,578	9,983,190	25,534,768

It appears from these figures that the *excess of imports* over exports during the seven years was 231,681,875*l.*, and that the *shipments of bullion* in the same period were 180,685,958*l.*, or 77·97 of the surplus. Complete returns are not yet available with regard to the proportions, foreign and colonial of our exports in 1860, but taking the six years ending 1859, it appears that the excess of our imports from, over our exports to, *foreign countries* was altogether 181,665,900*l.*, while the *colonies* showed a similar excess of 6,118,985*l.*, making a total of 187,784,885*l.* The *colonial* imports and exports, are, upon the whole, pretty well balanced. In fact, the excess of 6,118,985*l.* would not have existed at all, but for the disturbance of the Indian trade in 1857 by the disastrous mutiny of that year.

XIV.—*Effect of Reformatories.*

THE following valuable letter by Mr. Barwick Baker (Hardwicke Court, Gloucester), is copied from the *Times* of 13th August, 1861 :—

“ Forgive some remarks on your article of August 8th on Reformatories.

“ The truth of your observation that an increase of boys under detention in reformatories is perfectly compatible with a decrease of crime is shown most

forcibly in France, in a manner which they approve highly, though I fear that our Chancellor of the Exchequer might not see it in the same pleasant light. I have not before me at present the exact figures, but I think I am correct in stating that in 1833 the number of *jeunes détenus* in France was a little under 1,400, and I think that at present and for several years previous, it has been little under 10,000. I think that the population of England and Wales is about three quarters that of France, so that had they the same number in proportion to the population as we, it would amount to about 5,000 instead of 10,000; yet even in France they say that juvenile crime has greatly decreased, and I believe it.

"This, however, is a pregnant fact, and worthy of our consideration in several ways. In the first place, an increased number of *détenus* by no means proves an increase of crime, because, probably, of the 1,300 *détenus* in France in 1833, a large number were detained only a month or two, instead of, as now, from three to five years each.

"But there are other points to be considered. How comes it that, at the end of nearly thirty years of improvement, France has double the amount of *détenus* in proportion to their population that we have? Our Chancellor of the Exchequer complains that even our reformatories are a heavy expense to the country, and it would be no desirable prospect that this expense should be doubled some years hence. This, however, I think there is no occasion to fear, if the matter be properly watched.

"At the commencement of our work very many of the boys committed to us were hardened by a course of crime, and a course of three months' imprisonments (which of the two courses is the most hardening and pernicious I can hardly say), into regular habitual thieves. These were usually committed to us for five years each, and many of them are with us now; but at the present time the habitual boy thief is nearly an extinct animal. Even in London, when I went over Cold-bath Fields Prison a month ago, and found a marvellous diminution of crime, there were only ten boys whom I could call habitual thieves. This class must soon be entirely extinct. It is a physical necessity that if every boy be sent to a reformatory on his second conviction, and kept either there, or, at least under surveillance for three or four years, no boy can become an habitual thief. The boys who are now committed to us are of a different type to the older lot. Many are passionate or sulky, or ill-tempered—some are ignorant, stupid, or brutal, some nearly idiotic (epilepsy is not an unfrequent cause); more by far are weak, and easily led to good or evil (and these are our least hopeful cases, 'unstable as water' many of them will not, for many years, have strength of mind to be trustworthy); but the hardened, determined thief is nearly unknown. This will shorten our detentions, and, of course, greatly decrease our average numbers and expense.

"But there is another point to which you allude, and which requires watching to avoid the extreme to which they run in France.

"Mr. Turner states that 'above one-fourth of the children received into reformatories were under 12 years of age, and above one-half were received on first convictions.' Now, is this quite right?

"We must remember that a reformatory fitted to retain and reform boys of the worst character must be an expensive undertaking, and ought not to be used for cases which may be treated at one-twentieth of the expense. I am by no means in favour of saving expense at the cost of efficiency, but I cannot consent when using public money to refuse to consider the comparative cost of two systems.

"I some years ago procured returns of the juvenile convictions from, I think, eight or ten counties in different parts of England, and I found that in all, except the extremely dense populations of Middlesex, Surrey, and Lancashire, out of every eight boys committed to prison a first time only one on an average was committed, as a boy, for a second offence. I have no doubt, from what I have seen, that second offences are much more rare now than they were then. If so, is it not a mistake to send boys on first conviction to reformatories, except in rare exceptional cases? If you or I privately have some evil or nuisance which we wish to cure, if two remedies are suggested, one of which costs 15s. and succeeds in sever

cases out of eight, and the other costs 75*l.*, or even 30*l.*, and succeeds in nine cases out of ten, should we not try the 15*s.* remedy first, and, if it failed, try the more expensive one after? What we should do with our private funds we ought to do with the public ones. A ten days' imprisonment costs about 15*s.*; two years in a reformatory costs, at the present reduced allowance, 31*l.* 4*s.*, and five years cost 78*l.*

"But it will be said that ten days in prison will not work the entire change in the boy's whole mind which five years in a reformatory may be expected to produce. I grant it: but I must question whether we have a right to expend so large a sum on one boy merely for his own benefit. It is well worth spending a very large sum to prevent the existence of a regular habitual criminal, who will infect, corrupt, and educate others in crime. I believe that the result which has been obtained, of diminishing the committals of boys in England and Wales to the extraordinary degree of 42 per cent. in four years (while we can have little doubt that the crime has diminished to a far greater extent than the committals), would have been held in the estimation of every Englishman to have been worth double the sum it has cost. I believe that the boast that we can now make, that habitual crime among boys, even in London, is nearly extinct, is worth still more. These are public advantages, and the public will not grudge to pay for them. But when a question arises whether a boy on his first conviction shall receive a punishment costing 15*s.* or 30*l.*, I cannot let the private benefit of the individual outweigh so large a public cost.

"But to return to the French statistics. It was some time before I could understand the readiness with which every boy is received on the smallest offence. Parents are not made to contribute to their support; every facility seems to be offered—I would almost say, to tempt boys into reformatories. After a time, however, I found a not unnatural solution. In a country which is obliged to resort to conscription to supply its army and navy, an establishment which at the same time greatly diminishes crime and rears some thousands of boys per annum to reduce the conscription, is worth all its cost.

"This, however, we may trust, will never be the case in England, and until it be so I must contend for the principle which Mr. Sydney Turner lays down, that save in rare exceptional cases the experiment should be made whether the sending a child to prison for ten days will not suffice (as a short examination of the books of any gaol will show in seven cases out of eight) to prevent his continuance in a course of crime without sending him, on a first conviction, to a reformatory.

"At present we have two widely different systems of punishment on trial—the old and the new. The former consists in shutting a man up in a square box for a certain arbitrarily fixed period, just long enough to lose habits of work and to gain habits of gaol, and then opening the door and casting him forth on the world. The latter consists in a period of strict and harsh confinement, followed by associated hard work, that followed by hard work with very slight restrictions, and that again by a permission to work as a free man, only with a watch kept upon him to see whether that liberty be abused.

"The old system we have tried for long—I have taken my share in it for about thirty years—and I have not found any great effect produced in the diminution of crime. The new system, I have also watched closely as it has been applied to boys in England, to convicts in Ireland, and to female convicts in England. In the first of the three cases that part of the crimes which was so treated has decreased 42 per cent. in four years. In the second it has decreased about 50 per cent. in seven years. In the third, although the decrease of general crime is not very perceptible so far as I know, it has been admitted on all hands to have succeeded admirably in individuals.

"If two systems have a fair trial, and one is found practically to succeed better than the other—especially if plain common sense shows that the one would be likely to succeed better than the other—and practice bears out the view of common sense—I think that if the public hear of it the system which has succeeded is likely to be extended; and I have little doubt of seeing that system which has

answered with English boys, Irish convicts, and English female convicts extended to English male convicts, and to those committed to our gaols.

"Above all, the newer system has the advantage that the results are known. Nine out of ten can be traced for many years after the expiration of their sentence. This gives real ascertainable facts as to the success of the system. By these facts we ask to be judged."

[In the earlier portion of the above letter, Mr. Baker has fallen into some errors in regard to French reformatory statistics, and the proportion which the population of England and Wales bears to that of France. The population of England and Wales on 8th April, 1861, was 20,061,725; that of France, according to the census of 1856, was 36,039,864, consequently the former is little more than *one-half* that of the latter, instead of being *three quarters* as stated by Mr. Baker. It will be found, also, by consulting the French volume on *Justice Criminelle en France*, for 1859, that the number of *jeunes délinquans* from 1857-59, has been as follows, viz.:—

	1857.	1858.	1859.
Boys	6,515	6,888	5,973
Girls	804	907	1,090
Totals	7,319	7,795	7,063

Taking the figures for 1859 (7,063) in connection with the population of France in 1856, this gives one *jeune délinqu* to every 5,102 of the population. In Great Britain the number of reformatory inmates on the 31st December, 1860, was 3,712, or one inmate to every 6,229 of the population as ascertained at the recent census. Instead, therefore, of France having "double the amount of *délinquans* in proportion to her population that we have," as Mr. Baker asserts, the difference of proportion is comparatively insignificant; and indeed the proportion in the two countries would have been more nearly equivalent, had it not been for the singular fact that while the number of *Boys* detained in France have considerably *decreased* of late, the number of *Girls* is steadily *increasing*.—F. W. H., *Assist.-Sec. S. S.*]

XV.—*Income Tax.—Year ended 5th April, 1860.—Schedule (D), Trades and Professions.—Abstract compiled from Parl. Paper, 509/1861.*

Classes of Income per Annum.	Great Britain.			Ireland.		
	Amount of Income Charged.	Persons Charged.	Tax Charged.	Amount of Income Charged.	Persons Charged.	Tax Charged.
	£	No.	£	£	No.	£
Under £100	1,082,651	16,978	29,322	78,279	1,227	2,120
£100 and under £150	12,607,998	128,570	395,832	794,601	8,011	24,971
	13,690,649	145,548	425,154	872,880	9,238	27,091
£150 and under £200	6,566,480	41,687	246,243	400,789	2,529	15,029
200 " 300	8,067,090	36,535	302,516	553,156	2,451	20,743
	14,633,570	78,222	548,759	953,945	4,980	35,772
£300 and under £400	5,278,639	16,608	197,949	354,107	1,102	13,279
400 " 500	3,399,038	8,130	127,464	242,043	572	9,076
	8,677,677	24,738	325,413	596,150	1,674	22,355
£500 and under £600	3,124,366	6,073	117,164	213,331	411	8,000
600 " 700	2,128,724	3,468	79,827	154,729	250	5,802
700 " 800	1,664,213	2,295	62,408	126,003	172	4,725
800 " 900	1,615,616	1,965	60,586	125,060	154	4,690
900 " 1,000	836,251	901	31,359	54,300	59	2,036
	9,369,170	14,702	351,344	673,423	1,046	25,253
£1,000 and under £2,000....	7,646,382	5,932	286,739	399,038	307	14,969
2,000 " 3,000....	4,077,944	1,768	152,923	236,931	103	8,885
3,000 " 4,000....	2,877,407	879	107,903	150,996	45	5,662
4,000 " 5,000....	2,147,988	498	80,549	52,314	12	1,961
5,000 " 10,000 ..	5,962,739	887	223,603	165,382	27	6,202
	22,712,460	9,964	851,717	1,004,661	494	37,679
£10,000 and under £50,000	9,909,842	512	371,619	411,764	24	15,441
50,000 and upwards	5,379,722	59	201,739	115,099	1	4,316
	15,289,564	571	573,358	526,863	25	19,757
Total	84,373,090	273,745	3,075,745	4,627,922	17,457	167,907

**ABSTRACT OF THE REGISTRAR-GENERAL'S RETURN
OF THE
MARRIAGES IN ENGLAND AND WALES DURING THE FIRST QUARTER
(JANUARY—MARCH), OF 1861, AND OF THE BIRTHS AND DEATHS
DURING THE SECOND QUARTER (APRIL—JUNE), OF 1861.**

THIS Return comprises the BIRTHS and DEATHS registered by 2,197 Registrars in all the districts of England during the spring quarter that ended on June 30th, 1861; and the MARRIAGES in 12,477 churches or chapels, about 4,446 registered places of worship unconnected with the Established Church, and 631 Superintendent Registrars' offices, in the quarter that ended on March 31st, 1861.

The leading facts of the Return may be briefly stated:—The *marriages*, which were numerous in the concluding quarter of 1860, fell under the pressure of adverse circumstances in the first quarter of 1861; *many more children* than usual were born in the second quarter of this year; and in the same period *fine weather*, and perhaps other than meteorological causes, were on the whole favourable to health, for the *death-rate* was not quite so high as the average.

The POPULATION resident in England as enumerated at the Census of 8th April, 1861, may be stated to be, 20,061,725. This statement is derived from the reports of the local officers, and, though it is probably very near the truth, may undergo some modification when the numbers have been more accurately examined at the Central Office. The rate of increase in the last decennium was 12 per cent.

MARRIAGES.—The number of persons married in the winter quarter was 66,802. Of ten thousand of the population 135 were married, but if the marriage-rate had

**ENGLAND :—MARRIAGES, BIRTHS, and DEATHS, returned in the Years
1855-61, and in the QUARTERS of those Years.**

Calendar YEARS, 1855-61 :—Numbers.

Years	'61.	'60.	'59.	'58.	'57.	'56.	'55.
Marriages No.	—	170,305	167,723	156,070	159,097	159,337	152,113
Births..... "	—	683,440	689,881	655,481	663,071	657,453	635,043
Deaths..... "	—	422,472	440,781	449,656	419,815	390,506	425,703

QUARTERS of each Calendar Year 1855-61.

(I.) MARRIAGES :—Numbers.

Qrs. ended last day of	'61.	'60.	'59.	'58.	'57.	'56.	'55.
March .....No.	33,401	35,198	35,382	29,918	33,321	33,427	29,186
June "	—	43,833	42,042	39,890	41,267	38,820	38,549
Septmbr. "	—	40,572	39,803	38,599	38,669	39,089	37,308
Decmbr. "	—	50,702	50,496	47,663	45,840	48,001	47,070

QUARTERS of each Calendar Year, 1855-61.

(II.) BIRTHS:—Numbers.

<i>Qrs. ended last day of</i>	'61.	'60.	'59.	'58.	'57.	'56.	'55.
March .....No.	173,170	183,206	175,532	170,959	170,430	169,250	166,225
June "	184,718	173,914	175,864	169,115	170,444	173,263	165,277
Septmbr. "	—	164,062	168,394	157,445	161,181	157,462	154,790
Decmbr. "	—	162,258	170,091	157,962	161,016	157,478	148,841

(III.) DEATHS:—Numbers.

<i>Qrs. ended last day of</i>	'61.	'60.	'59.	'58.	'57.	'56.	'55.
March .....No.	121,713	122,642	121,580	125,819	108,665	103,014	134,542
June "	107,721	110,878	105,631	107,142	100,046	100,099	106,493
Septmbr. "	—	86,423	104,216	98,142	100,528	91,155	87,646
Decmbr. "	—	102,529	109,354	118,553	110,576	96,238	97,022

been equal to the average for that quarter, the number would have been 142. Tables that run through a series of years show that the people are less prone to enter into wedlock in the first than in any of the succeeding quarters, and in the present year that season was eminently unpropitious in consequence of the severe frost and dearness of provisions. The average weekly number of recipients of indoor and out-door relief exceeded by 54,155 that relieved in the winter of 1860. From a comparison of corresponding quarters of 1859-61, it appears that the *decline in marriages* was general over the country. In London they fell from 5,751 and 5,668 to 5,346; in Staffordshire from 1,497 and 1,430 to 1,226; in South Wales from 1,173 and 1,224 to 1,042. Kent and Oxfordshire were *exceptions* to the rule, for in those counties marriage was brisk. Sturminster, Blandford, Dorchester, Sherborne, Beaminster, and Bridport in Dorsetshire more than shared the general

ENGLAND:—*Annual Rate Per Cent. of PERSONS MARRIED, BIRTHS, and DEATHS, during the YEARS 1855-61, and the QUARTERS of those Years.*

Calendar YEARS, 1855-61:—General Percentage Results.

YEARS	'61.	Mean '61-'60.	'60.	'59.	'58.	'57.	'56.	'55.
Estmtd. Popln. of England in thousands in middle of Year	20,114	—	19,889	19,667	19,448	19,231	19,016	18,804
Persons Married Per ct. }	—	1·694	1·712	1·706	1·606	1·654	1·676	1·618
Births "	—	3·420	3·436	3·508	3·370	3·448	3·457	3·377
Deaths "	—	2·226	2·124	2·241	2·312	2·183	2·054	2·264

QUARTERS of each Calendar Year, 1855-61.

(I.) PERSONS MARRIED:—Percentages.

Qrs. ended last day of	'61.	Mean '61-'60.	'60.	'59.	'58.	'57.	'56.	'55.
March....Per ct.	1·352	1'417	1'420	1'460	1'248	1'408	1'416	1'266
June..... "	—	1'703	1'762	1'712	1'642	1'714	1'638	1'648
Septmbr. "	—	1'622	1'608	1'598	1'566	1'592	1'626	1'574
Decmbr. "	—	1'999	2'002	2'020	1'930	1'876	1'990	1'978

(II.) BIRTHS:—Percentages.

Qrs. ended last day of	'61.	Mean '61-'60.	'60.	'59.	'58.	'57.	'56.	'55.
March....Per ct.	3·506	3'592	3'693	3'624	3'567	3'600	3'585	3'603
June "	3'689	3'554	3'495	3'579	3'490	3'548	3'656	3'534
Septmbr. "	—	3'275	3'250	3'379	3'195	3'308	3'275	3'261
Decmbr. "	—	3'227	3'203	3'402	3'198	3'295	3'264	3'128

(III.) DEATHS:—Percentages.

Qrs. ended last day of	'61.	Mean '61-'60.	'60.	'59.	'58.	'57.	'56.	'55.
March....Per ct.	2'464	2'480	2'472	2'510	2'625	2'295	2'182	2'916
June..... "	2'151	2'207	2'228	2'150	2'205	2'083	2'112	2'277
Septmbr. "	—	2'021	1'712	2'091	1'992	2'063	1'896	1'848
Decmbr. "	—	2'179	2'024	2'187	2'400	2'263	1'995	2'039

dulness; which may be also affirmed of Basford and Nottingham, in both of which places trade was very depressed, and "people were driven to seek employment in "other towns."

BIRTHS.—The number of children born in the quarter that ended June 30th, was 184,718, which is *higher* than the number born in any quarter of any previous year. The birth rate was very nearly 37 per 1,000 of the population, whilst the average is less than 36. In only one of the forty-two quarters that have passed since 1850 has the rate exceeded 37 per 1,000. All the counties, with a few exceptions, of which Rutlandshire may be mentioned as one, contributed a portion, more or less, of the increase of last quarter. In London the *births rose* from 22,184 in the spring quarter of 1860 to 24,842 in that of the present year. In Devonshire they rose from 4,325 to 4,755. Manchester, Salford, and Chorlton exhibited a considerable increase; in West Derby, also, the births were numerous; but in Liverpool they did little more than maintain their level.

INCREASE OF POPULATION.—The increase of population as disclosed by the registers of births and deaths was 76,997, for to that extent the former exceeded the latter. The rate of increase was equal to 846 daily.

According to the *emigration* return, about 8,505 persons of English origin left

ports in the United Kingdom, of whom 5,241 were bound for the United States, 776 for the North American Colonies, 2,155 for the Australian Colonies, 833 for other places. The total number of emigrants, including about 1,700 foreigners, was 37,987, of whom 25,562 went to the United States. The Irish element formed nearly two-thirds of the whole emigration. The Scottish part of it showed a clear preference for Australia.*

Of persons who enter this country as travellers or settlers no account can be rendered.

PRICES, THE WEATHER, AND PAUPERISM.—The price of wheat was 54s. 9d. a quarter, and was higher by 2s. 1d. than in the previous June quarter, and by 7s. 6d. than in that of 1859. The mean price of beef in Leadenhall and Newgate markets was 5½d.; both highest and lowest prices were less than in the same quarter of 1860, which also held in respect of mutton, the mean price of which was 6½d. Best potatoes averaged 130s. per ton; they were dearer than in the same quarter of 1859, cheaper than in that of 1860.

The mean temperature of the air at Greenwich was 51·8°, which is 0·4° below the average for the same three months in 90 years. The weather was cold till the middle of May, when it became comparatively warm, and there was from the 20th of that month to the end of June an average daily excess in the temperature of one degree. On May 23rd the temperature reached 80°; the highest temperature of last year occurred on the same day, but did not exceed 76·5°. It reached 82°, nearly, on the 19th June. The fall of rain in the quarter was 4·5 inches, which is 1·3 inches below the average. There was snow on 27th April in great part of the country; it fell on the 4th May at Brighton, Banbury, Berkhamstead, and Bywell. Full meteorological details by Mr. Glaisher are subjoined to this Report.

Weather of singular severity in January inflicted great suffering on the poor, and the number of persons entitled to in-door and out-door relief was swelled to unusual magnitude. The paupers on the lists in the subsequent spring quarter (April, May, June) were reduced, but were still very numerous, and on a weekly average were 831,587, against 799,434 in the corresponding season of last year.

STATE OF THE PUBLIC HEALTH.—The number of deaths in the quarter that ended June 30th was 107,721; in the same period of last year it was 110,878. The *annual death-rate* for the quarter was 215 to ten thousand persons living, whilst the *average* is 221.

Both *towns* and *country* populations have enjoyed a slightly improved degree of health; for dividing England into two portions, one chiefly urban and little inferior in amount of population to the other chiefly rural, it appears that the rate of mortality in *towns* was 228 per 10,000 (against an average of 237), and that in the *country* it was 203 against 205. In either instance the result of comparison is on the side of salubrity, though as regards the country the degree of improvement is almost imperceptible. The difference in the rates of country and town during last quarter may be stated thus:—Taking equal populations, for 203 persons who died in the former, 208 + 25 died in the latter.

If the rate of mortality that is found to rule in the *least unhealthy districts* had prevailed last quarter throughout England, the total deaths enumerated would have been, not 107,721, but 85,823. Consequently a certain portion of the registered mortality may be termed unnatural, and is represented by 21,898 deaths. This large contribution levied on human life is to a great extent the penalty paid for ignorance or neglect of those social arrangements which it is the business of sanitary reformers to invent and to recommend.

The deaths in LONDON were 15,238, against 13,801 and 14,894 in the two-corresponding quarters of 1859-60. Whooping-cough was unusually fatal, and in

* From a Return with which the Registrar-General has been favoured by the Emigration Commissioners: the number returned as of English origin was 4,800, while the birthplace of 6,820 emigrants was not distinguished; in the above statement a proportional number of these has been added to those returned as of English origin.

CONSOLS, PROVISIONS, PAUPERISM, and TEMPERATURE, in each of the nine
QUARTERS ended 31st March, 1861.

1	2	3		4 5		6	7 8		9
Quarters ending	Average Price of Consols (for Money).	Average Price of Wheat per Quarter in England and Wales.	Average Prices of Meat per lb. at Leadenhall and Newgate Markets (by the Carcase), with the Mean Prices.		Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	Pauperism.		Mean Tem- pera- ture.	
			Beef.	Mutton.		Quarterly Average of the Number of Paupers relieved on the last day of each week.			
						In-door.	Out-door.		
1859	£	s. d.	d. d. d.	d. d. d.	s. s. s.				
30 June	92½	47 3	4½—6½ 5½	5—7 6	85—110 97	109,150	710,410	53·7	
30 Sept.	95½	44 0	4½—6½ 5½	4½—6½ 5½	65—105 85	100,582	682,867	62·8	
31 Dec.	96½	43 4	4—6½ 5½	4½—6½ 5½	85—120 102	109,429	683,962	43·3	
1860									
31 Mar.	94½	44 5	3½—6½ 5½	4½—6½ 5½	115—145 130	118,523	717,264	38·8	
30 June	94½	52 8	4½—6½ 5½	5½—7½ 6½	125—160 142	107,050	692,384	50·5	
30 Sept.	93½	59 1	4½—7 5½	5½—7½ 6½	125—145 135	101,680	667,680	56·2	
31 Dec.	93½	56 9	3½—6½ 4½	4½—6½ 5½	115—130 122	115,158	673,680	42·6	
1861									
31 Mar.	91½	55 1	4—6½ 5½	5½—7½ 6½	140—155 147	131,501	758,441	39·9	
30 June	91½	54 9	4½—6½ 5½	5½—7½ 6½	120—140 130	117,802	713,785	51·8	

Col. 6 is deduced from the Weekly Tables published in the *Economist*. The average of the highest and of the lowest weekly prices is here shown in cols. 4, 5, and 6, and not the absolute highest or lowest price quoted at any period of the quarter.

Cols. 7 and 8 are deduced from the Returns of the Poor Law Board. The Returns now relate to 649 Unions, &c., comprising a population of 17,697,206 (in 1851), and do not include the paupers of parishes, &c., incorporated under Gilbert's Act, or still under the 43rd Elizabeth; Lunatic Paupers in Asylums and Vagrants relieved in the above Unions are also excluded. They amounted on January 1st, 1860, to—Insane Persons, 31,554; Vagrants, 1,542. The rest of the paupers on that day amounted to 817,800.

thirteen weeks carried off 1,151 children. Zymotic diseases were the cause of rather more than a fifth part of the mortality. The metropolitan population was 2,803,034.

In the SOUTH EASTERN COUNTIES, which contain a population of 1,846,876, the deaths were 8,252, and exhibited a decrease on the returns of two previous corresponding quarters.

The population of the SOUTH MIDLAND COUNTIES is 1,295,375, and the deaths

were 6,519. Though the mortality of this division was not so high as in the same period of last year, the returns from many parts of it indicate a rather unfavourable condition of health.

The EASTERN COUNTIES, with a population of 1,142,202, returned 6,094 deaths, against 6,230 in the June quarter of 1860. The numbers were heavy in Ipswich and Hoxne districts. At Stebbing in Essex the deaths were nearly double the average.

DEATHS in the Spring Quarters, ended June 30th, 1854-61.—Numbers.

DEATHS, &c.	1861.	Total 1861-60, (10 Years.)	1860.	1859.	1858.	1857.	1856.	1855.	1854.
In 125 Districts and 23 Sub-districts, comprising the <i>Chief Towns</i>	55,883	530,678	56,081	53,517	55,308	51,367	51,963	53,563	53,717
In the remaining Districts and Sub-Districts of England and Wales, comprising chiefly Small Towns and Country Parishes ...	51,839	509,927	54,847	52,114	51,840	48,679	48,157	52,931	48,866
All England	107,721	1,040,605	110,878	105,631	107,148	100,046	100,099	106,493	102,583

AREA, POPULATION, DEATHS, and MORTALITY per Cent. in the Spring Quarters, ended June 30th, 1861-61.

GROUPS.	Area in Statute Acres. (England.)	Population Enumerated. (England.)		Deaths in 10 Spring Quarters, 1861-60.	Average Annual Rate of Mortality per Cent. of 10 Spring Quarters, 1861-60.	Annual Rate of Mortality per Cent. in the Spring Quarter, 1861.
		March 31st, 1861.	April 8th, 1861.			
In 125 Districts, and 23 Sub-Districts, comprising the <i>Chief Towns</i>	No. 2,149,800	No. 8,247,017	No. 9,803,711	No. 530,678	Per ct. 2·371	Per ct. 2·282
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly Small Towns and Country Parishes	35,175,115	9,680,592	10,258,014	509,927	2·050	2·026
All England	37,324,915	17,927,609	20,061,725	1,040,605	2·207	2·151

NORTH WESTERN COUNTIES. Population 2,934,722. Deaths in the quarter 17,652. It is a fact well worthy of notice that *Lancashire* with a population less than that of London by about 338,000, and living on an area nearly seventeen times as large, returned almost as many deaths as the metropolis, for the difference was only 181. If sanitary work is still to be done in London, it is evident that the want of it is exceedingly urgent in the seats of manufacture and commerce in the north.

**MARRIAGES Registered in Quarters ended 31st March, 1859-61; and
BIRTHS and DEATHS in Quarters ended 30th June, 1859-61.**

1 DIVISIONS. (England and Wales.)	2 AREA in Statute Acres.	3 POPULATION, 1861. (Persons.)	4 5 6 MARRIAGES in Quarters ended 31st March.		
			'61.	'60.	'59.
ENGLD. & WALES.... Totals	37,324,915	20,061,725	No.	No.	No.
			33,401	35,198	35,382
I. London	78,029	2,803,034	5,346	5,668	5,751
II. South Eastern	4,065,935	1,846,876	2,429	2,499	2,549
III. South Midland	3,201,290	1,295,375	1,557	1,671	1,634
IV. Eastern	3,214,099	1,142,202	1,500	1,486	1,657
V. South Western	4,993,660	1,835,551	2,999	3,220	3,075
VI. West Midland	3,865,332	2,436,137	3,838	4,026	4,400
VII. North Midland	3,540,797	1,288,718	1,813	1,982	1,970
VIII. North Western	2,000,227	2,934,722	6,198	6,369	6,173
IX. Yorkshire	3,654,636	2,015,329	3,763	4,019	3,929
X. Northern	3,492,322	1,151,281	4,013	2,060	2,111
XI. Monmthsh. & Wales	5,218,588	1,312,500	1,945	2,198	2,133

7 DIVISIONS. (England and Wales.)	8 9 10 BIRTHS in Quarters ended 30th June.			11 12 13 DEATHS in Quarters ended 30th June.		
	'61.	'60.	'59.	'61.	'60.	'59.
ENGLD. & WALES.... Totals	184,718	173,914	175,864	107,721	110,878	105,631
I. London	24,842	22,184	22,753	15,238	14,894	13,801
II. South Eastern	14,856	13,635	14,277	8,252	9,225	8,468
III. South Midland	11,423	10,835	11,206	6,519	7,054	6,171
IV. Eastern	9,995	9,547	9,944	6,094	6,230	5,434
V. South Western	15,577	14,533	14,869	8,614	10,071	9,172
VI. West Midland	23,444	22,318	21,720	12,722	12,960	13,364
VII. North Midland	11,795	11,466	11,377	6,960	6,912	6,921
VIII. North Western	29,790	27,535	27,893	17,652	17,655	16,773
IX. Yorkshire	19,593	19,014	18,601	11,617	11,881	11,588
X. Northern	11,366	11,055	10,960	6,569	6,325	6,256
XI. Monmthsh. & Wales	12,037	11,792	12,264	7,484	7,671	7,683

REMARKS ON THE WEATHER,

DURING THE QUARTER ENDING 30TH JUNE, 1861.

By JAMES GLAISHER, ESQ., F.R.S., &c., Sec. of the British Meteorological Society.

The weather was cold till the *middle of May*, the mean daily temperatures of the air for the 44 days ending May 14th being $3^{\circ}0$ below the average for this period. On the 15th and 16th of May the days were comparatively warm; the excess of temperature was $5^{\circ}5$ on the former, and $8^{\circ}5$ on the latter; these, however, were followed by 3 cold days: the deficiency of temperature on the 17th, 18th, and 19th was $5\frac{1}{2}^{\circ}$ daily. From the *20th of May to the end of June* the weather was generally warm; the average daily excess of temperature of the last 42 days was 1° . On May 23rd the temperature reached 80° ; the highest temperature in the year 1860 took place on the same day of the year, viz., the 23rd of May, but it was $76^{\circ}5$ only.

In *June* the temperature reached 82° nearly; in the preceding June the highest point reached was 74° . On June 14th the mean temperature of the whole day was 67° , exceeding by $4\frac{1}{2}^{\circ}$ that of the warmest day in the preceding year.

The mean high day temperature in April was $1\frac{3}{4}^{\circ}$, in May 1° , and in June $0^{\circ}4$ below their respective averages for the preceding 20 years; therefore the high day temperatures were too low throughout the quarter.

The mean low night temperature in April was $2\frac{1}{2}^{\circ}$ below, in May $1^{\circ}2$ below, and in June $1^{\circ}1$ above their respective averages for the preceding 20 years. Therefore the nights in April and May were cold, and in June were warm.

The mean temperature of the air for the months of April and May was a little below their average values, and that of June differed but very little from its average.

The mean temperature of the dew point in April was $0^{\circ}3$ above, in May was $1^{\circ}9$ below, and in June was $2^{\circ}3$ above their averages.

The mean pressure of the atmosphere in April exceeded its average by $\frac{1}{4}$ inch, in May by $\frac{1}{8}$ inch, and in June differed but little from its average pressure.

The temperature of vegetation, as indicated by a thermometer placed on grass, was below 40° on 48 nights, and above 40° on 43 nights; the highest reading at night during the quarter was $55\frac{1}{2}^{\circ}$, and the lowest $14^{\circ}0$.

The fall of rain in April was 0.8 inch, in May was 1.8 inch, and in June was 1.9 inch. The total fall during the quarter was 4.5 inches, being 1.3 inch below the average of the preceding 46 years.

The mean temperature of the air at Greenwich for the three months ending May, constituting the three spring months, was $46^{\circ}7$, being $0^{\circ}3$ above the average of the preceding 90 years.

1861. Months.	Temperature of										Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
	Air.			Evaporation.		Dew Point.		Air— Daily Range.		Water of the Thames				
	Mean.	Diff. from Aver- age of 30 Years.	Diff. from Aver- age of 30 Years.	Mean.	Diff. from Aver- age of 30 Years.	Mean.	Diff. from Aver- age of 30 Years.	Mean.	Diff. from Aver- age of 30 Years.		Mean.	Diff. from Aver- age of 30 Years.	Mean.	Diff. from Aver- age of 30 Years.
April	44.3	-1.5	-2.0	43.4	-0.9	40.3	+0.3	19.0	+0.8	48.9	.249	+0.02	2.9	0.0
May	51.9	-0.6	-0.9	47.8	-1.3	43.6	-1.9	20.5	+0.3	56.3	.284	-0.16	3.2	-0.2
June	59.1	+1.0	-0.1	56.0	+1.3	53.1	+2.3	19.5	-1.5	62.8	.404	+0.81	4.6	+0.4
Mean.....	51.8	-0.4	-1.0	48.7	-0.3	45.6	+0.2	19.7	-0.1	56.0	.312	+0.06	3.6	+0.1

1861. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Horizontal Move- ment of the Air.	Reading of Thermometer on Grass.				
	Mean.	Diff. from Aver- age of 30 Years.	Mean.	Diff. from Aver- age of 30 Years.	Mean.	Diff. from Aver- age of 30 Years.	Amnt.	Diff. from Aver- age of 46 Years.		Number of Nights it was			Low- est Read- ing at Night.	High- est Read- ing at Night.
										At or below 30°.	Be- tween 30° and 40°.	Above 40°.		
April	85	+ 6	In. 29.999	+ .264	Gr. 551	+ 7	In. 0.8	- 1.0	Miles. 189	19	11	-	o 14.0	o 39.0
May	74	- 2	29.924	+ .163	543	+ 4	1.8	- 0.3	201	7	10	14	23.9	50.0
June	81	+ 7	29.782	- .011	531	0	1.9	0.0	196	0	1	29	35.5	55.2
Mean.....	80	+ 4	29.902	+ .138	541	+ 4	Sum 4.5	Sum - 1.3	Mean 195	Sum 26	Sum 23	Sum 43	Lowest 14.0	Highest 55.2

Note.—In reading this table it will be borne in mind that the sign (—) minus signifies below the average, and that the sign (+) plus signifies above the average.

The Cuckoo and Swallow arrived at Fairlight, Clifton, and Exeter about the 22nd of April; at Gloucester on the 12th.

The Cherry and Plum Trees were in blossom at Fairlight on the 18th; at Gloucester about the middle of the month; at Berkhamstead the blossom on these trees is abundant, and a good crop may be expected. At Grantham it was remarked that the vegetation was very backward; but that which had appeared above the ground was very healthy and promising, whilst in the neighbourhood of Belvoir Castle, which is not many miles from Grantham, the report is quite contrary. At Thelwall the crops are looking well, and there is every appearance of an abundant harvest; the oak trees at this place have suffered in a remarkable manner from the frost of last winter.

ENGLAND.—*Meteorological Table, Quarter ended 30th June, 1861.*

1	2	3	4	5	6	7	8	9
NAMES OF STATIONS.	Mean Pressure of Dry Air reduced to the Level of the Sea.	Highest Reading of the Thermo- meter.	Lowest Reading of the Thermo- meter.	Range of Tem- perature in the Quarter.	Mean Monthly Range of Tem- perature.	Mean Daily Range of Tem- perature.	Mean Tem- perature of the Air.	Mean Degree of Hu- midity.
	in.	°	°	°	°	°	°	
Guernsey	29.755	71.5	40.0	31.5	24.3	9.3	50.8	88
Exeter	29.769	81.5	32.1	48.4	36.3	17.0	53.2	76
Ventnor	29.778	75.0	36.0	39.0	28.6	10.5	54.0	71
Barnstaple	29.764	85.2	32.0	53.2	41.1	17.6	54.1	80
Royal Observatory	29.768	81.8	26.8	55.0	40.8	19.7	51.8	80
Royston	29.770	85.3	27.9	57.4	43.9	20.6	51.5	79
Lampeter	29.763	83.5	22.2	61.3	45.6	22.1	52.4	81
Norwich	29.765	77.0	28.0	49.0	39.0	17.1	51.2	82
Belvoir Castle	29.770	78.7	28.0	50.7	39.5	18.7	50.1	83
Liverpool	29.764	77.2	35.5	41.7	27.7	12.1	52.4	78
Wakefield	29.771	83.2	25.5	57.7	39.3	18.3	51.6	81
Leeds	29.776	83.0	31.0	52.0	39.0	19.2	51.4	70
Stonyhurst	29.776	77.2	30.2	47.0	34.7	16.8	57.0	81
Scarborough	29.763	72.0	30.0	42.0	30.6	10.0	48.5	84
Isle of Man	29.756	75.6	30.0	45.6	35.2	15.7	50.6	85
North Shields	29.756	74.0	29.2	44.8	34.9	12.0	52.4	81

10	11	12	13	14	15	16	17	18
NAMES OF STATIONS.	WIND.					Mean Amount of Cloud.	RAIN.	
	Mean estimated Strength.	Relative Proportion of					Number of Days on which it fell.	Amount collected.
		N.	E.	S.	W.			
								in.
Guernsey	1.3	12	6	4	8	3.8	24	3.6
Exeter	0.9	12	8	5	6	5.9	44	4.5
Ventnor	—	3	12	5	9	—	31	5.4
Barnstaple	1.3	9	7	4	9	4.1	28	4.7
Royal Observatory	0.1	11	10	4	5	7.4	29	4.5
Royston	—	13	8	3	7	6.6	36	3.6
Lampeter	0.6	8	8	5	7	4.8	25	4.7
Norwich	1.8	—	—	—	—	7.0	27	3.3
Belvoir Castle	1.6	11	5	6	8	6.1	32	5.7
Liverpool	1.1	—	—	—	—	6.2	28	4.7
Wakefield	1.6	11	6	3	11	6.9	42	4.4
Leeds	1.9	12	7	3	8	6.7	37	4.1
Stonyhurst	0.5	7	10	4	9	6.0	49	5.1
Scarborough	3.0	11	7	7	5	—	23	4.1
Isle of Man	1.3	7	9	5	8	4.1	31	5.6
North Shields	1.6	11	10	5	4	6.7	49	6.5

Trade of United Kingdom, 1861-60-59.—*Distribution of Exports from, United Kingdom, according to the Declared Real Value of the Exports; and the Computed Real Value (ex-duty) of Imports at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (excluding Gold and Silver), Imported from, and Exported to, the following Foreign Countries, &c. (The unit 000's are omitted.)	First Three Months.					
	1861.		1860.		1859.	
	Imports from	Exports to	Imports from	Exports to	Imports from	Exports to
I.—FOREIGN COUNTRIES:	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	1,601,	241,	1,553,	245,	1,719,	307,
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	3,321,	4,356,	3,946,	4,933,	2,782,	4,594,
Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	6,068,	2,856,	4,758,	2,295,	4,996,	2,146,
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	1,043,	1,876,	810,	1,547,	892,	1,471,
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	3,308,	1,308,	2,666,	2,040,	3,012,	1,901,
Northern Africa; viz., Tripoli, Tunis, Algeria, and Morocco	79,	43,	29,	20,	44,	56,
Western Africa	152,	272,	330,	271,	138,	243,
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Moorla Islands	—	3,	9,	13,	4,	*215,
Indian Seas, Siam, Java, Sumatra, Philippines; other Islands	235,	543,	310,	538,	119,	295,
South Sea Islands	—	—	—	3,	—	—
China, including Hong Kong	2,906,	1,853,	2,843,	1,467,	2,331,	976,
United States of America	14,046,	4,147,	11,088,	5,886,	6,909,	6,271,
Mexico and Central America	156,	206,	133,	155,	127,	118,
Foreign West Indies and Hayti	625,	563,	365,	342,	353,	481,
South America, (Northern,) New Granada, Venezuela, and Ecuador	212,	311,	129,	220,	127,	224,
" (Pacific,) Peru, Bolivia, Chili, and Patagonia	996,	586,	1,117,	571,	782,	516,
" (Atlantic) Brazil, Uruguay, and Buenos Ayres	653,	1,676,	632,	1,531,	748,	1,388,
Whale Fisheries; Grnld., Davis' Straits, Southn. Whale Fishery, & Falkland Islands	—	3,	—	—	—	6,
Total.—Foreign Countries	35,400,	20,843,	30,718,	22,077,	25,083,	21,208,
II.—BRITISH POSSESSIONS:						
British India, Ceylon, and Singapore	2,267,	3,204,	2,350,	4,158,	2,099,	5,145,
Austral. Cols.—New South Wales and Victoria	286,	1,466,	635,	1,921,	367,	1,691,
" " So. Aus., W. Aus., Tasm., and N. Zea.	108,	375,	94,	391,	5,	354,
British North America	593,	329,	388,	512,	320,	716,
" W. Indies with Btsh. Guiana & Honduras	793,	597,	817,	563,	755,	536,
Cape and Natal	204,	465,	358,	467,	256,	473,
Br. W. Co. of Af., Ascension and St. Helena	17,	112,	12,	97,	28,	109,
Mauritius	1,012,	129,	384,	130,	560,	125,
Channel Islands	140,	149,	147,	166,	85,	163,
Total.—British Possessions	5,420,	6,826,	5,185,	8,405,	4,475,	9,312,
General Total	40,820,	27,669,	35,903,	30,482,	29,558,	30,520,

* £200,000 Telegraphic wires.

IMPORTS. — (United Kingdom.) — **First Five Months, (January — May)**
1861-60-59-58-7.—*Computed Real Value (Es-duty), at Port of Entry, (and*
therefore including Freight and Importer's Profit), of Articles of Foreign and
Colonial Merchandise Imported into the United Kingdom.

(First Five Months.) FOREIGN ARTICLES IMPORTED.		(000's omitted.)	1861.	1860.	1859.	1858.	1857.
			£	£	£	£	£
RAW MATLS.—Textile.	Cotton Wool ...		18,909,	18,752,	12,044,	13,173,	13,369,
	Wool (Sheep's) ..		2,849,	3,308,	3,063,	2,479,	3,299,
	Silk		4,184,	4,137,	4,568,	2,279,	6,266,
	Flax		641,	769,	881,	445,	719,
	Hemp		358,	398,	567,	282,	360,
	Indigo		425,	676,	707,	490,	695,
			27,366,	28,040,	21,800,	19,148,	24,668,
" " <i>Various.</i>	Hides		638,	1,218,	747,	540,	1,304,
	Oils		976,	1,040,	939,	979,	1,016,
	Metals		1,055,	1,304,	1,151,	1,119,	1,142,
	Tallow		569,	527,	330,	466,	683,
	Timber		1,413,	1,058,	1,096,	638,	1,157,
			4,651,	5,147,	4,263,	3,742,	5,302,
" " <i>Agricltl.</i>	Guano		879,	626,	339,	1,930,	504,
	Seeds		968,	947,	1,011,	560,	638,
			1,847,	1,573,	1,350,	2,490,	1,142,
TROPICAL, & C., PRODUCE.	Tea		3,435,	3,811,	2,235,	1,905,	2,313,
	Coffee		669,	793,	419,	524,	390,
	Sugar & Molasses		766,	4,277,	3,900,	4,108,	5,112,
	Tobacco		465,	312,	277,	407,	583,
	Rice		523,	244,	147,	595,	417,
	Fruits		312,	251,	140,	140,	358,
	Wine		1,816,	1,783,	841,	729,	1,526,
	Spirits		649,	964,	709,	389,	1,159,
			12,635,	12,435,	8,668,	8,797,	11,858,
FOOD	Grain and Meal..		15,981,	6,402,	6,752,	7,879,	6,798,
	Provisions		2,673,	2,131,	1,155,	1,330,	1,850,
			18,654,	8,533,	7,907,	9,209,	8,648,
Remainder of Enumerated Articles			1,307,	1,369,	1,138,	1,042,	1,508,
TOTAL ENUMERATED IMPORTS ..			66,460,	57,097,	45,156,	44,428,	53,126,
Add for UNENUMERATED IMPORTS (say)			16,615,	14,274,	11,289,	11,107,	13,28,
TOTAL IMPORTS			83,075,	71,371,	56,445,	55,535,	66,408,

**EXPORTS. — (United Kingdom.) — First Six Months, (January — June),
1861-60-59-8-7. — Declared Real Value at Port of Shipment of Articles of
BRITISH and IRISH Produce and Manufactures Exported from United Kingdom.**

(First Six Months.) (Unit 000's omitted.) BRITISH PRODUCE, &c., EXPORTED.		1861.	1860.	1859.	1858.	1857.
		£	£	£	£	£
MANFRES.—Textile.	Cotton Manufactures..	18,894,	18,580,	18,942,	15,385,	15,373,
	" Yarn	4,458,	4,660,	4,370,	4,478,	4,004,
	Woolen Manufactures	4,961,	5,501,	5,861,	4,148,	5,531,
	" Yarn	1,640,	1,739,	1,133,	1,132,	1,323,
	Silk Manufactures	1,024,	950,	1,022,	768,	1,457,
	" Yarn	134,	117,	97,	80,	183,
	Linen Manufactures....	2,039,	2,001,	2,257,	1,922,	2,390,
	" Yarn	773,	913,	787,	761,	836,
		33,923,	34,461,	34,469,	28,674,	31,097,
	" Sewed. Apparel	951,	965,	1,013,	851,	948,
	Haberdy. and Milnary.	1,689,	1,856,	2,158,	1,557,	2,055,
		2,640,	2,821,	3,171,	2,408,	3,003,
METALS	Hardware	1,640,	1,657,	1,840,	1,502,	1,901,
	Machinery	1,905,	1,592,	1,487,	1,794,	1,680,
	Iron	5,256,	5,607,	6,331,	5,393,	7,114,
	Copper and Brass	1,112,	1,474,	1,197,	1,327,	1,355,
	Lead and Tin	910,	1,287,	1,355,	1,040,	1,361,
	Coals and Culm	1,727,	1,544,	1,600,	1,522,	1,486,
		12,550,	13,161,	13,810,	12,578,	14,897,
Ceramic Manufs.	Earthenware and Glass	885,	979,	915,	830,	1,093,
Indigenous Manfs.	Beer and Ale	830,	1,252,	1,295,	1,093,	872,
	Butter	252,	264,	319,	221,	275,
	Cheese	62,	55,	58,	36,	59,
	Candles	135,	120,	75,	70,	151,
	Salt	209,	170,	116,	143,	190,
	Spirits	178,	145,	114,	97,	490,
	Soda	269,	487,	517,	347,	375,
		1,935,	2,493,	2,494,	2,007,	2,412,
Various Manufs.	Books, Printed	203,	221,	215,	183,	206,
	Furniture	96,	103,	106,	130,	131,
	Leather Manufactures	945,	1,032,	898,	932,	1,133,
	Soap	116,	124,	92,	98,	131,
	Plate and Watches ...	204,	241,	235,	219,	255,
	Stationery	299,	373,	393,	360,	358,
		1,863,	2,094,	1,939,	1,922,	2,214,
	Remainder of Enumerated Articles	1,890,	1,622,	1,546,	1,308,	1,630,
	Unenumerated Articles	4,457,	4,389,	4,659,	3,741,	4,480,
	TOTAL EXPORTS	60,143,	62,020,	63,003,	53,468,	60,826,

SHIPPING.—FOREIGN TRADE.—(United Kingdom.)—First Six Months, (January—June), 1861-60-59-8.—Vessels Entered and Cleared with Cargoes, including repeated Voyages, but excluding Government Transports.

(First Six Months.) ENTERED:—	1861.			1860.		1859.		1858.	
	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)
	No.	Tons.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
<i>Vessels belonging to—</i>									
Russia	168	51,	304	136	42,	129	38,	51	14,
Sweden	473	80,	169	379	60,	333	56,	300	48,
Norway	1,066	200,	188	874	176,	892	193,	791	156,
Denmark	1,229	118,	96	1,341	127,	1,111	108,	1,149	111,
Prussia and Ger. Sts.	1,741	382,	220	1,527	318,	1,417	314,	1,315	286,
Holland and Belgium	809	107,	132	771	106,	760	107,	562	86,
France	1,002	79,	78	946	81,	1,466	120,	1,405	117,
Spain and Portugal	247	56,	230	188	50,	169	41,	211	44,
Italy & other Eupn. Sts.	397	112,	282	287	88,	262	83,	299	88,
United States	937	834,	889	692	689,	506	514,	640	610,
All other States	6	2,	333	10	3,	7	2,	11	4,
United Kingdm. & Depds. }	8,075	2,021,	250	7,151	1,740,	7,052	1,576,	6,734	1,564,
	9,087	2,714,	275	8,526	2,482,	8,505	2,287,	8,312	2,204,
<i>Totals Entered</i>	17,162	4,735,	275	15,677	4,222,	15,557	3,863,	15,046	3,768,
 CLEARED:—									
Russia	179	54,	302	142	46,	155	48,	84	29,
Sweden	477	87,	182	425	75,	361	68,	337	68,
Norway	943	169,	180	762	152,	886	185,	573	117,
Denmark	1,471	145,	93	1,464	143,	1,248	125,	1,200	121,
Prussia and Ger. Sts.	2,255	422,	187	1,924	378,	2,070	408,	1,918	338,
Holland and Belgium	971	136,	140	908	151,	984	153,	985	168,
France	2,702	259,	95	1,764	191,	1,752	191,	2,140	224,
Spain and Portugal	202	52,	258	160	45,	167	39,	198	43,
Italy & other Eupn. Sts.	519	148,	285	360	113,	388	119,	486	148,
United States	794	722,	909	711	675,	490	478,	605	575,
All other States	12	5,	416	9	3,	11	4,	8	3,
United Kingdm. & Depds. }	10,525	2,199,	209	8,629	1,972,	8,512	1,818,	8,534	1,834,
	12,358	3,238,	262	11,652	3,147,	12,110	3,142,	11,491	2,925,
<i>Totals Cleared</i>	22,883	5,437,	236	20,281	5,119,	20,622	4,960,	20,025	4,759,

GOLD AND SILVER BULLION AND SPECIE. — IMPORTED AND EXPORTED. — (United Kingdom.) — Computed Real Value for the First Six Months, (January — June), 1861-60-59.

(000's at unit end omitted.)

(First Six Months.)	1861.		1860.		1859.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
Imported from:—	£	£	£	£	£	£
Australia	3,092,	—	3,286,	—	3,973,	—
So. Amca. and W. } Indies	617,	2,780,	598,	1,839,	1,147,	1,395,
United States and } Cal.	27,	26,	1,653,	551,	3,882,	411,
	3,736,	2,806,	5,537,	2,390,	9,002,	1,806,
France	1,697,	346,	53,	1,762,	814,	4,093,
Hanse Towns, Holl. } & Belg.	401,	378,	10,	860,	338,	2,211,
Portg., Spain, and } Gbrltr.	6,	94,	11,	142,	36,	97,
Mlt., Trky., and } Egypt	12,	3,	14,	7,	229,	7,
China	—	—	—	—	—	—
West Coast of Africa	40,	1,	55,	2,	44,	2,
All other Countries...	82,	25,	125,	7,	1,198,	11,
Totals Imported	5,974,	3,653,	5,805,	5,170,	11,731,	8,227,
Exported to:—						
France	916,	556,	3,447,	200,	8,301,	207,
Hanse Towns, Holl. } & Belg.	9,	454,	66,	176,	682,	716,
Portg., Spain, and } Gbrltr.	482,	3,	276,	1,	149,	—
	1,407,	1,013,	3,789,	377,	9,132,	923,
Ind. and China (via } Egypt)	451,	4,594,	760,	5,385,	125,	8,832,
Danish West Indies...	11,	29,	5,	10,	137,	6,
United States	5,930,	18,	1,	2,	10,	3,
South Africa	75,	—	2,	—	2,	5,
Mauritius	—	2,	—	—	—	—
Brazil	12,	83,	273,	74,	64,	60,
All other Countries...	394,	62,	95,	28,	43,	30,
Totals Exported	8,280,	5,801,	4,925,	5,876,	9,513,	9,859,
Excess of Imports ...	—	—	880,	—	2,218,	—
„ Exports ...	2,306,	2,148,	—	706,	—	1,632,

REVENUE.—(UNITED KINGDOM.)—30TH JUNE, 1861-60-59-8.

Net Produce in YEARS and QUARTERS ended 30TH JUNE, 1861-60-59-8.

[Unit 000's omitted.]

QUARTERS, ended 30th June.	1861.	1860.	1861.		Corresponding Quarters.	
			Less.	More.	1859.	1858.
	£ Mins.	£ Mins.	£ Mins.	£ Mins.	£ Mins.	£ Mins.
Customs	5,820,	5,733,	—	87,	6,108,	5,879,
Excise	5,171,	5,114,	—	57,	4,945,	4,626,
Stamps	2,186,	2,068,	—	118,	1,960,	2,084,
Taxes	1,363,	1,354,	—	9,	1,349,	1,326,
Post Office	825,	825,	—	—	785,	765,
Property Tax	15,365,	15,094,	—	271,	15,147,	14,680,
	2,588,	1,089,	—	1,499,	782,	1,199,
Crown Lands	17,953,	16,183,	—	1,770,	15,929,	15,879,
	67,	66,	—	1,	65,	64,
Miscellaneous	378,	570,	193,	—	498,	336,
Totals	18,398,	16,819,	193,	1,771,	16,492,	16,279,
			NET INCR. £1,578,480			

YEARS, ended 30th June.	1861.	1860.	1861.		Corresponding Years.	
			Less.	More.	1859.	1858.
	£ Mins.	£ Mins.	£ Mins.	£ Mins.	£ Mins.	£ Mins.
Customs	23,393,	24,085,	692,	—	24,347,	22,839,
Excise	19,492,	20,530,	1,038,	—	18,221,	17,944,
Stamps.....	8,466,	8,151,	—	315,	7,882,	7,649,
Taxes	3,136,	3,237,	101,	—	3,185,	3,154,
Post Office	3,400,	3,350,	—	50,	3,220,	3,010,
Property Tax	57,887,	59,353,	1,831,	365,	56,855,	54,596,
	12,423,	9,903,	—	2,520,	6,266,	10,330,
Crown Lands	70,310,	69,256,	1,831,	2,885,	63,121,	64,926,
	292,	286,	—	6,	280,	277,
Miscellaneous	1,260,	1,874,	614,	—	2,288,	1,676,
Totals	71,862,	71,416,	2,445,	2,891,	65,689,	66,879,
			NET INCR. £445,607			

REVENUE (UNITED KINGDOM).—QUARTER ENDED 30TH JUNE, 1861 :—
APPLICATION.

An Account showing the REVENUE and other RECEIPTS of the QUARTER ended 30th June, 1861 ; the APPLICATION of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.

Received:—

Surplus Balance beyond the Charge of the <i>Consolidated Fund</i> for the Quarter ended 31st March, 1861, viz.:—	£
Great Britain	—
Ireland	£782,747
	<hr/> 782,747
Income received in the Quarter ended 30th June, 1861, as shown on preceding page	18,397,594
Amount raised per Act 23 and 24 Victoria, cap. 109, on account of Fortifications, &c.	160,000
Amount received in the Quarter ended 30th June, 1861, in repayment of Advances for Public Works, &c.	489,883
	<hr/> £19,830,224
Balance, being the deficiency on 30th June, 1861, upon the charge of the Consolidated Fund in Great Britain; to meet the Dividends, and other charges, payable in the Quarter to 30th September, 1861, and for which Exchequer Bills (Deficiency) will be issued in that Quarter.....	2,066,001
	<hr/> £21,896,225

Paid:—

Amount applied out of the Income for the Quarter ended 30th June, 1861, in redemption of Exchequer Bills (Deficiency), for the Quarter ended 31st March, 1861	£
	697,137
Amount applied out of the Income to <i>Supply Services</i> in the Quarter ended 30th June, 1861	12,835,559
Charge of the <i>Consolidated Fund</i> for the Quarter ended 30th June, 1861, viz.:—	
Interest of the Permanent Debt	£6,310,130
Terminable Debt	349,177
The Civil List	100,984
Other Charges on Consolidated Fund	507,137
Advances for Public Works, &c.	257,403
	<hr/> 7,524,781
Surplus Balance in Ireland beyond the Charge of the Consolidated Fund in Ireland for the Quarter ended 30th June, 1861, viz.:	388,748
	<hr/> £21,896,225

CORN.—*Gazette Average Prices (ENGLAND AND WALES) Second Quarter of 1861.*

[This Table is communicated by H. F. JADIS, Esq., Comptroller of Corn Returns.]

Weeks ended on a Saturday 1861.	Weekly Average. (Per Impl. Quarter.)					
	Wheat.	Barley.	Oats.	Rye.	Beans.	Peas.
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
April 6	56 4	37 8	24 -	36 4	41 8	40 2
" 13	56 10	37 5	24 1	35 11	41 6	40 -
" 20	56 9	37 8	23 5	37 10	42 3	39 6
" 27	55 8	37 11	24 8	32 8	42 7	40 8
<i>Average for April</i>	56 4	37 6	24 -	35 8	42 -	40 1
May 4	55 4	36 10	24 7	35 2	42 11	40 8
" 11	55 -	36 4	25 -	none sold	43 10	40 11
" 18	54 4	35 11	25 1	32 -	44 4	40 5
" 25	55 3	34 11	25 2	33 8	44 6	39 9
<i>Average for May</i>	54 11	36 -	24 11	33 7	43 11	40 5
June 1	55 5	34 3	25 8	33 1	45 11	40 7
" 8	54 5	32 8	26 -	30 6	44 -	39 10
" 15	53 9	34 3	25 2	41 2	44 3	41 1
" 22	52 8	32 6	25 2	35 5	44 -	38 8
" 29	51 -	31 8	25 -	39 4	43 3	37 1
<i>Average for June</i>	53 5	32 11	25 4	35 10	44 3	39 5
<i>Average for the Quarter ..</i>	54 9	35 3	24 10	35 3	43 5	39 11

RAILWAYS.—PRICES, April—June,—and TRAFFIC Jan.—June, 1861.

Total Capital Ex- pended Mins.	Railway.	For the (£100). Price on			Miles Open.		Total Traffic first 26 Weeks. unit 000's omitted.		Traffic pr. Mile pr. Wk. first 26 Wks.		Dividends per Cent. for Half Years.		
		1 Jan.	1 Ma.	1 Ap.	'61.	'60.	'61.	'60.	'61.	'60.	30 Dec. '60.	30 Jun. '60.	30 Dec. '59.
£					No.	No.	£	£	£	£	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
40.7	Lond. & N. Westn.	94½	95½	95	1,004	1,004	2,092	2,097	80	80	52 6	50 -	52 6
26.8	Great Western	73	72½	70½	583	583	1,003	984	66	65	35 -	30 -	35 -
12.2	Great Northern	110½	112	110½	283	283	642	640	87	87	63 9	45 -	70 -
16.7	Eastern Counties.	49½	50	49½	499	499	640	646	49	49	23 9	21 3	30 9
9.7	Brighton	119½	118	119	224	223	414	382	71	66	70 -	50 -	70 -
13.6	South-Eastern	80½	82	83½	306	306	517	518	64	64	60 -	46 8	60 -
11.4	South-Western	95	95½	92½	400	344	473	438	42	49	52 6	42 6	52 6
131.1		88	87	88	3,299	3,242	5,781	5,705	65	65	51 1	40 9	53 11
21.2	Midland	121½	124	125	614	614	987	983	62	62	70 -	65 -	60 -
18.9	Lancsh. and York.	111½	111½	110½	395	395	946	917	92	89	60 -	55 -	50 -
9.1	Sheffield and Man.	43½	43½	44½	173	173	303	297	67	66	15 -	10 -	10 -
23.2	North-Eastern	103½	104	101½	789	764	978	933	47	47	57 6	52 6	41 -
4.6	South Wales	64	-	59	171	171	179	176	40	39	30 -	20 -	27 6
77.0		89	96	88	2,142	2,117	3,393	3,306	61	60	46 6	40 6	37 10
8.9	Caledonian	97½	97½	95½	219	219	395	377	69	68	55 -	45 -	50 -
5.2	Gt. S. & Wn. Irland.	107	107	104½	329	329	202	193	24	23	50 -	50 -	50 -
222.2	<i>Gen. aver.</i>	91	92	90	5,989	5,907	9,771	9,581	61	61	49 7	41 7	47 2

Consols.—Money Prices 1st June, 90½ to ½.—1st May, 91½ to ½.—1st April, 91½ to ½.
 Exchequer Bills. „ 4s. dis. to par. „ 5s. to 2s. dis. „ 9s. dis.

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), for Wednesday in each Week, during the SECOND QUARTER (April—June) of 1861.

ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
Liabilities.	DATES.	Assets.			Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.
		Government Debt.	Other Securities.	Gold Coin and Bullion.		
Notes Issued.	(Wednesdays.)					
Mins. £	1861.	Mins. £	Mins. £	Mins. £	Mins. £	1861. Per ann.
26,67	April 3....	11,02	3,46	11,34	19,83	4 Apl. 6 p. ct.
26,85	" 10....	11,02	3,46	11,52	20,16	11 " 5 "
26,84	" 17....	11,02	3,46	11,52	20,29	
26,80	" 24....	11,02	3,46	11,44	20,04	
26,51	May 1....	11,02	3,46	11,33	20,30	
26,49	" 8....	11,02	3,46	11,30	20,17	
26,02	" 15....	11,02	3,46	10,88	20,04	16 May 6 "
25,63	" 22....	11,02	3,46	10,60	19,81	
25,81	" 29....	11,02	3,46	10,82	19,37	
25,54	June 5....	11,02	3,46	10,65	19,86	
25,58	" 12....	11,02	3,46	10,75	19,34	
25,89	" 19....	11,02	3,46	11,15	19,18	
26,15	" 26....	11,02	3,46	11,47	19,20	

BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18	
Liabilities.					DATES. (Wednesdays.)	Assets.					Totals of Liabilities and Assets.
Capital and Rest.		Deposits.		Seven Day and other Bills.		Securities.		Reserve.			
Capital.	Rest.	Public.	Private.			Government.	Other.	Notes.	Gold and Silver Coin.		
Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	1861.	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	
14,55	3,86	7,82	11,63	,61	April 3	10,61	20,22	6,84	,81	38,48	
14,55	3,17	4,90	13,20	,65	" 10	10,22	18,82	6,69	,75	36,48	
14,55	3,18	4,19	13,38	,69	" 17	10,27	18,41	6,55	,76	36,00	
14,55	3,18	4,76	12,60	,68	" 24	10,27	17,96	6,76	,79	35,78	
14,55	3,19	5,58	11,18	,66	May 1	10,27	17,87	6,21	,80	35,16	
14,55	3,24	6,08	12,07	,64	" 8	10,27	19,14	6,32	,86	36,59	
14,55	3,26	6,72	11,59	,66	" 15	10,18	19,80	5,98	,84	36,79	
14,55	3,27	6,91	11,20	,63	" 22	10,18	19,72	5,82	,83	36,56	
14,55	3,22	6,87	11,64	,53	" 29	9,92	19,64	6,44	,83	36,83	
14,55	3,22	7,22	10,71	,62	June 5	9,92	19,86	5,68	,87	36,33	
14,55	3,22	7,57	10,95	,59	" 12	9,89	19,87	6,24	,90	36,90	
14,55	3,22	7,85	11,08	,56	" 19	9,89	19,72	6,71	,98	37,30	
14,55	3,26	8,16	11,51	,58	" 26	9,97	20,18	6,95	,96	38,06	

CIRCULATION.—COUNTRY BANKS.

Average amount of Promissory Notes in Circulation in ENGLAND and WALES, on Saturday, in each Week during the SECOND QUARTER (April—June) of 1861; and in SCOTLAND and IRELAND, at the Four Dates, as under.

ENGLAND AND WALES.				SCOTLAND.				IRELAND.		
DATES.	Private Banks. (Fixed Issues, 43s.)	Joint Stock Banks. (Fixed Issues, 330s.)	TOTAL. (Fixed Issues, 76s.)	Four Weeks, ended	£s and upwards.	Under £s.	TOTAL. (Fixed Issues, 27s.)	£s and upwards.	Under £s.	TOTAL. (Fixed Issues, 63s.)
1861.	Mins. £	Mins. £	Mins. £	1861.	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £
April 6	3,38	3,11	6,49	April 6	1,43	2,42	3,85	3,26	3,29	6,55
" 13	3,41	3,13	6,54							
" 20	3,38	3,09	6,47							
" 27	3,34	3,03	6,37							
May 4	3,31	3,01	6,32	May 4	1,53	2,45	3,98	3,36	3,16	6,52
" 11	3,29	3,01	6,30							
" 18	3,26	3,00	6,26							
" 25	3,17	2,92	6,09							
June 1	3,11	2,83	5,94	June 1	1,76	2,77	4,53	3,32	3,01	6,33
" 8	3,05	2,77	5,82							
" 15	3,02	2,74	5,76							
" 22	2,98	2,72	5,70							
" 29	2,98	2,72	5,70	June 29	1,63	2,65	4,28	3,04	2,78	5,82

FOREIGN EXCHANGES.—Quotations as under, LONDON on Paris, Hamburg & Calcutta.
—and New York, Calcutta, Hong Kong & Sydney, on LONDON—with collateral cols.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
DATES.	Paris.				Hamburg.			New York.	Calcutta.		Hong Kong.	Sydney.	Standard Silver in bar in London.
	London on Paris.	Bullion as arbitrated.		Prem. or Dis. on Gold per mille.	London on Hambg.	Bullion as arbitrated.			India House.	At Calcutta on London.			
		3 m. d.	Agst. Engd.			For Engd.	3 m. d.	Agst. Engd.			For Engd.	60 d. s.	60 d. s.	6 m. s.	6 m. s.	30 d. s.	pr. os
	1861.		pr. ct.	pr. ct.			pr. ct.	pr. ct.	pr. ct.	d.	d.	d.	pr. ct.	d.
April 6 ..	25·72	—	0·6	2 p.	13·9½	—	0·8	107	26	25	55	1 p.	60½
„ 20 ..	·50	—	0·3	„	·7½	—	0·5	108½	„	„	„	„	61½
May 11 ..	·57	0·1	—	„	·8½	—	0·1	105½	„	„	„	„	„
„ 25 ..	·70	—	0·7	„	·9½	—	0·7	106	„	„	„	„	60½
June 8 ..	·72	—	0·4	„	·9½	—	0·4	105½	„	„	„	„	60
„ 22 ..	·70	—	0·5	„	·10½	—	0·5	106	„	„	„	„	60

JOURNAL OF THE STATISTICAL SOCIETY,

DECEMBER, 1861.

The Progress of ECONOMIC SCIENCE during the last THIRTY Years:—an OPENING ADDRESS by WILLIAM NEWMARCH, F.R.S., as PRESIDENT of the Section (F) of ECONOMIC SCIENCE and STATISTICS, at the Thirty-First Annual MEETING of the BRITISH ASSOCIATION for the ADVANCEMENT of SCIENCE, at MANCHESTER, 4th—11th September, 1861;—with a REPORT of the CLOSING PROCEEDINGS of the Section.

[From the Notes of the Shorthand Writer.]

THERE is some danger at this time that undue importance may be attached to the achievements of Physical Discovery. Surrounded as we are by the great results which have been accomplished by Railways, Ocean Steamers, Telegraphs, Tubular Bridges, and Rifled Cannon, there is some danger, and it is not a small danger, that we may attach excessive and undue importance to the obligations which society owes to those discoveries—great and momentous beyond all question—and to the achievements which have followed them. I venture, however, to think that if we consider carefully the history of the last Thirty Years, we shall find that during that time there have been in operation certain powerful Economical and Social forces, the effects of which have been hardly less striking or beneficial than the effects which have flowed from the physical discoveries I have mentioned.

We shall find first of all that during the last thirty years, by the application of sound economic doctrines to subjects of Foreign and Inland Trade, a change has been produced so extensive that it affects not merely the population of our own country, but affects in a marked and beneficial manner the populations of most of the countries which form the commercial world. We shall find, further, that during the same period, by the application of sound principles to the subject of Taxation, we have succeeded in removing from amongst ourselves sources of danger and discontent which threatened the most lamentable consequences. We have also, during the same time, by the aid of larger views and more exact knowledge, succeeded in rearing up a long list of Colonies in the Eastern and Western Hemispheres on principles so sound, that they have borne the test of rough experience, and have now become landmarks in our legislation. By the application of larger and more accurate rules

of judgment to the subject of Education, we have succeeded in adding depth and breadth to the foundations of those habits of morality and order which in truth constitute the real superiority of the inhabitants of this country over the people of other parts of the world. We have in the fifth place, by the application of a similar careful and sound philosophy to questions relating to the Sanitary Condition of the country, already produced effects which it is impossible to contemplate without surprise and gratitude. By the application of Sanitary Science to the improvement of our dwellings, and to the cleansing of our towns, we have been able to accomplish a marked reduction in the annual rate of mortality; and we have done not a little to promote the further supremacy of our own race by largely improving and strengthening its physical type. Nor have we been less successful in discovering and applying effectual means for the prevention of Crime and for the establishment of reformatory agencies designed to render the occurrence of crime less frequent. In truth, so great has been the success which has attended this part of the labours of the last thirty years, that we are in some measure justified in hoping that a time may not be very distant when we shall be relieved almost entirely from the affliction and peril of what have been called "the dangerous classes." In the last place, we are entitled to say, that our success has not been small in dealing, since 1830, with the extensive and intricate subject of the Poor Laws. Those who remember what was the social condition of this country thirty years ago—before any systematic attempts had been made to settle the Poor Laws upon sound principles—will set due value upon the advance which has been made during that time; and will not fail to be thankful for the sound and satisfactory basis upon which this important part of our social legislation now rests.

Looking back at the changes and the experience of which this is a rapid outline, it appears to me that I shall not be in any danger of misleading the Section if I suggest, that probably the most conspicuous and important fact to be found in the history of Economic Science during the last thirty years is this;—namely, that while there has been no change in the objects to which it is directed—no change in the purposes intended to be worked out—while these objects and these purposes remain the same in their broad and general aspect, as they have been from the time of Adam Smith—there has been a marked change in the Methods according to which Economic Science is cultivated. It has ceased to be an abstract science,—it has ceased to be a system of subtle and ingenious reasonings. It has little by little, and by a process cautious and full of promise, become a science almost entirely experimental. We have learned that in all questions relating to human society,—in all controversies where the agency of

human beings has to be relied upon for working out even the smallest results—we have learned that in these inquiries the only sound basis on which we can found doctrines, and still more the only safe basis on which we can erect laws, is not hypothetical deduction, however ingenious and subtle, but conclusions and reasoning supported by the largest and most careful investigation of facts. This vital change of method, this substitution of observation and experiment (and for our present purpose the two words mean very much the same thing) for deductions arrived at by geometrical reasoning, seems to me to be the most prominent fact of the last thirty or forty years, as regards the progress of the branches of knowledge which more immediately interest us in this Section.

We are surrounded by evidence of the occurrence of changes closely analogous in almost every other division of human inquiry. A strong desire for evidence ample and accurate, an ardent craving after the results of the most patient investigation of large actual experience, and increasing distrust of doctrines and conclusions which do not rest upon such experience, are habits and tendencies of mind which have become prevalent not only among those who cultivate Economic Science, but among the cultivators of knowledge of nearly all kinds. We find this experimental and scrupulous spirit vigorously manifest in the pursuits of the Historian. We have seen it carried to a large, and frequently, perhaps, to an excessive extent in Archaeology, and in the descriptions of art, and the kinds of knowledge which rest upon ancient precedents. We find it busily at work in Literature; incessantly digging up startling facts with which to pull down old and build up new reputations. We find it also happily in Politics, and there at least where the only lawful object is wise legislation, a regard for actual experience rather than a proneness to loose speculation must be almost an unmixed good. It appears to me, therefore, looking at the changes of the last thirty or forty years, that we are fully justified in accepting as one of the most conspicuous and fortunate of the results arising out of those changes, the introduction into the large class of inquiries which relate to the constitution and control of human societies, of an observing, cautious, and experimental spirit,—a spirit which leads men to accept no doctrine and place reliance on no conclusion which come to them supported only by hypothetical reasoning, however subtle and ingenious;—but on the contrary strongly disposes them to consider the teachings of Experience, if not as the exclusive, certainly as the chief foundation for leading opinions and practical measures.

It has been often said—formerly perhaps more frequently than at present—that some degree of reproach attaches to Economic Science, inasmuch as it is not purely a Science, but partakes largely

of the nature of an Art. I confess that this criticism seems to me to be scarcely a reproach at all. It seems to me also to proceed upon a hasty and imperfect view of the real difference between science and art—and especially of the science and art embraced in Political Economy. Science, according to the generally accepted definition, is simply a collection of rules and laws, and of statements of general results. The end of all Science is knowledge, simply and purely. It does not concern itself with precepts. It does not concern itself with applications and utilities. It confines itself to a specific declaration that such and such is the order of nature, and there its teachings come to an end. In the case of astronomy, for example—to select one of the most familiar instances—the functions of the astronomer, as a purely scientific man, are at an end when he has declared that the solar system and the planetary bodies exist and move in a certain order. It is no part of the functions of the astronomer, purely as such, to give precepts and advice as regards the practical application of the knowledge at his command. It is no part of his scientific functions, for example, to recommend that the results of his observations shall be reduced into the practical form of a Nautical Almanac and sold at a cheap rate for the safety of mariners and the benefit of calendar makers. Physiology, in like manner, gives no precepts. It limits itself, as a science, to the announcement that certain results, good or bad, flow from certain conditions; and it leaves to others the application of these discoveries to some useful end. Physiology, as a science, has no exhortations to urge as regards the establishment of hospitals, the provision of fire-escapes, or the proceedings of the sanitary officer. This is the state of the case if we consider human knowledge solely from the scientific level—that is, solely as a collection of results collected together because they are true, and not because they are useful or agreeable, or the contrary. But it seems to me, that in surveying human knowledge from this purely scientific level we are confusing ourselves with an unreal distinction, and misapprehending the intimate relation which exists between discovery and precept. The truth really is, that all sciences are more or less necessarily arts; that the connection between the scientific law and the precept founded upon it is so close and immediate that it requires no small effort of attention to satisfy one's self that it is possible to have a scientific law without a practical precept inseparably attached to it. Take, for example, one of the cases to which I have already referred. The astronomer finds, by means of his observations, that at a certain future time there will be combinations of heavenly bodies of such a nature that the occurrence will afford great assistance to navigation. Surely, the first impulse of a reasonable human being, under such circumstances, would be to convert the discovery into a precept, and

to take the most effective measures for deriving as much benefit as possible from the scientific fact. In like manner, the discoveries of Physiology, and improvements in the treatment of the sick, in the management of hospitals, and the cleansing of towns, are all essentially parts of the same train of thought, and consequences of the same antecedent.

But in the case of Economic Science the connection between the science and the art is still more emphatic and intimate than in any of the Physical Sciences. I have just said that not even the smallest problem in Economic Science can be worked out except by the agency, in some form, of human beings. From first to last the whole subject matter of this branch of knowledge is Man in Society, and the regulations which will best promote the happiness and comfort of men living in societies. The connection, therefore, in this case, between the science and the art—between the law discovered and the precept and practice founded on that law,—is so near and intimate that only confusion and error can ensue from unwise attempts to separate them.

There is another difficulty to contend with in connection with this subject, and that is the difficulty of finding sufficiently comprehensive, but also sufficiently precise expressions by which to describe or designate the range of topics which concern us in this Section. Economic Science is a technical term, applicable in strictness only to those inquiries which relate to the production, accumulation, and distribution of Wealth. But if we stop there—if we concern ourselves only in investigating the single subject of wealth—we shall but imperfectly acquaint ourselves with the leading influences which (apart from physical causes) determine the advancement and comfort of human communities. "Social Science" is a term which has been much used of late years, and although it is certainly not the happiest of descriptive phrases, nor a term which satisfies many of the desirable conditions, still it is probable that the time has come when by general consent we must attach to the words "Social Science" a definite technical meaning, and understand them to imply a range of topics considerably larger than is included in the scope of Economic Science, but still excluding a great number of subjects which the phrase "Social," if used in its ordinary meaning, would assuredly imply. If, for example, a person were carefully to set out all the influences which (physical causes apart) affect men in societies—that is all the social influences—it does not require much reflection to perceive that he would have placed before him a field of inquiry so vast that it would be presumptuous in the highest degree to attempt to grapple with it, and futile in the highest degree to attempt to define and describe it by any single phrase. In the first place, the foundation of any system of social order and administration

must be sought in *Morality and Religion*; and commencing with these we should find that rightly to apprehend social stability and progress we must extend our inquiries in some such order as the following, namely:—Political Economy, Jurisprudence, Municipal Law, Education, Sanitary Science,—closing probably with the Fine Arts and the art of Government. This is a field of inquiry manifestly so wide and diversified that it would be idle to affect to regard it as one subject, or to apply to it any single phrase of precision. We must clearly be content with a conventional and circumscribed view of what we agree for convenience to call Social Science. There is a kindred association, which is establishing itself rapidly in the public estimation, I mean the National Association for the Promotion of Social Science—an association which I may safely say took its origin in this very Section, for when it was found after long experience that the topics which came before us here were so manifold and extensive that we could not hope to deal with them satisfactorily, it occurred to some leading and active minds that it was desirable to form a separate association which should wholly occupy itself, according to a scheme of proceeding resembling that of the British Association, with questions of Social Science. Starting with the experience acquired at former meetings of this Section, and aided in no slight degree by the public opinion which those meetings had fostered and promoted, a large and powerful association has been rapidly established, and has already, in spite of opposition and ridicule in some quarters, secured for itself no mean place in the public favour. Looking at the proceedings of this important body, the probability seems to be, that by-and-by we shall come to understand by a sort of general agreement, that on grounds, at least of convenience, if not of strict etymology or exact definition, “Social Science” shall be understood to include the five kindred inquiries of Political Economy, Jurisprudence and Amendment of the Law, Education, Sanitary Science, and Statistics. These are five lines of inquiry, which all converge to the same point; and although many independent divergences occur in the course which they pursue towards that point, still the ultimate results are so completely the offspring of evidence and conclusions drawn from each of the five divisions, that it seems to be probable that before long we shall find it convenient to regard these five groups of topics as in reality branches of the same subject; and so completely branches of the same subject that we shall hesitate to accept doctrines which are not supported by reasonings and evidence which imply familiarity not with one group only of the five, but familiarity more or less extensive with the whole.

I have included Statistics as one of these five groups. Now I

am bound to tell you, that Statistics taken alone cannot properly be described as a science. I am bound to tell you, that in Statistics we have no such body of general laws as are to be found in other branches of inquiry, which no one hesitates to describe as sciences. We have, for example, in Statistics no such body of general laws as are to be found in dynamics, as are to be found in chemistry, or in physiology. But then we claim for Statistics—and it is no small claim to put forward for any branch of knowledge—that it is the application of the Experimental or Baconian method to the several divisions of inquiry which relate to man in society. We say, that where there is no careful application of the Statistical method—in other words, where there is an absence of observation and experiment, so far as observation and experiment can be applied to men in societies—there can be but faint hope of arriving at the truth in any line of research connected with social problems. But we go further. We say, that we have already made sufficient advances in the application of Statistics during the last thirty, and more especially during the last ten or fifteen years, to be able to affirm that we begin to see our way to the establishment in several directions of what may be conveniently called Ultimate Statistical Units. We have, in truth, made no trifling advances towards the construction of an Economical and Statistical Chart, the results of which will be hardly inferior in exactness, as they assuredly will not be inferior in interest or importance, to the admirable charts already constructed of the geology or geography of leading States.

Let me tell you of a few of the principal subjects upon which we are arriving at ultimate statistical units. First, there are Vital Statistics—then Commercial Statistics—then Economical Statistics—fourthly, Trade Statistics—and lastly, Taxation Statistics. What do we mean by an Ultimate Unit in Vital Statistics? We mean, that by a careful series of observations extended over sufficient periods of time and applied to classes of people sufficiently different in their occupations and modes of life, we have been able to arrive at a result which expresses, with a high degree of accuracy, the annual death-rate which ought to prevail in a community which avails itself diligently of the appliances for preserving health which modern science and civilization have placed at our disposal. In this country, very much by the perseverance and skill of my friend Dr. Farr, who sits on my right, we have found by the application of careful statistical methods, carried on systematically year after year, that in a community of human beings inhabiting a country like our own and enjoying reasonable comfort, the rate of mortality in one year ought not to exceed 17 in the 1,000. In that numerical result, or rather in that Ultimate Statistical Unit, of 17 in the 1,000, as expressing the annual death-rate prevailing in this climate, in a popu-

lation living under circumstances not specially but ordinarily favourable, we have arrived at a conclusion of a solid and important kind. It is not a conclusion which I will venture to suggest to you may be placed on an equality with the sublime law of definite proportions discovered by your own Dalton; but we may fairly place it in the second rank of scientific results. Taking our stand on this Ultimate Unit of annual mortality, we are able to say that wherever the deaths greatly exceed the ascertained limit there is something amiss; and that an urgent responsibility rests on the inhabitants of a town or district in which an excessive death-rate prevails to lose no time in removing the causes which are inflicting an excessive waste of human life. I say that in this simple formula of 17 in the 1,000 we have one of those Ultimate Statistical Units which places in our hands, as regards the future, a definite kind of force, the value of which we cannot very well over estimate.

The same reasoning and the same inferences apply to the other four classes of Statistical results to which I have referred, but I cannot now detain you by considering them with minuteness. I will say only, that under the head of *Economical Results* we are making progress in determining for several countries the figures which in each represent the average earnings of ordinary unskilled labour, and the kind of food, clothing, and shelter which those earnings will purchase. That is to say, that by-and-by we shall be able to describe the *Economical* condition of different parts of the world as precisely and specifically as we are at present able to describe their geography or their ethnology.

But before I leave this part of the subject, let me make one observation further relative to *Vital Statistics*—and it is this, that probably no test can be suggested which is so exhaustive as indicating the real character of a civilisation as the rate of *Infant* mortality. We know pretty well what is the rate of infant mortality in a considerable number of our towns and country districts, and we know the corresponding rate in similar districts in other countries, and I am induced to think that in those cases where the infant death-rate is the lowest, there human life is maintained under the most favourable conditions, moral and physical. Consider what is implied by a low rate of infant mortality. It supposes a moral relation of the sexes. It supposes skill, care, and affection on the part of the mother, and effort and vigilance on the part of the father. It supposes wholesome dwellings and appropriate food; and still further, it supposes knowledge and intelligence sufficient to apply all these advantages in the best way. When then by means of statistical researches we show, that in a given place the rate of infant mortality is less than in some other, or than in almost any other, we have conferred upon that particular place a great benefit, for we have

shown that there human life goes on in a sober and orderly way, and that men and women have learned adequately to appreciate and understand the prize of existence placed in their charge.

Let me say here, that a meeting was held last year in London which was full of promise as regards the future advancement of scientific Statistics,—I mean the International Statistical Congress. We had there, representatives of nearly all the Governments of Europe. We had also representatives from some of the countries on the other side of the Atlantic. The efforts and labours of the Congress were directed to the establishment of methods whereby, in the different countries represented, the same processes may be followed in arriving at the same pre-arranged results; and by this and other means we have so cleared the path, that we are justified in expecting that at no distant date we shall have established over a large area of the earth a series of those Ultimate Statistical Units which will exhibit accurately, and free from any devices of rhetoric or arts of description, the real effects of the social arrangements and relations which prevail in different parts of the world.

I have told you, that Statistics cannot claim to be a Science in the precise sense of that term. I must now tell you that so far as Statistics are concerned I do not consider that any numerical results put forward by Statisticians are entitled to be called or regarded as statistical "laws." We have heard a great deal lately of these so-called "statistical laws." We have heard a great deal of the Necessary conclusions which are said to flow inevitably from the evidence of a certain class of statistical results, or "laws." It appears to me, with all deference, that the term "law," as applied to any statistical result whatever, is a misapplication of the term. The utmost that Statistics can do is to express numerically the *average* result of any given series of observations of occurrences taking place under particular conditions among human beings. But in the case of a physical law, I would suggest to the Section that our knowledge is so much superior to any expression of mere average, that we can predict the result of any single event or experiment as confidently and accurately as we can predict the results of series of similar events. In the case of astronomy, for example, we can predict as certainly what will be the motion and place of one star on a particular day in a particular part of the heavens as we can predict the motions and places of hundreds of stars. In like manner in all the other natural sciences the power of individual prediction is founded, and founded wholly, not upon an "average" inference, but upon a certain knowledge of the rigid operation of a "law" which holds good as absolutely in single cases as in masses of cases. In dynamics we know perfectly beforehand what will be the result of any given experiment as regards

momentum under prescribed conditions, or as regards the movement of prescribed bodies through a specified medium. But in the case of Statistics—that is, in the case of knowledge which does not rise above the level of an “average” inference—we have absolutely no power whatever of prediction in individual cases, and only a very qualified power of prediction as regards masses of cases. Take, for example, that kind of statistical knowledge which has been carried perhaps to the greatest perfection because large pecuniary interests are dependent upon it—I mean the application of Statistics in estimating the duration of human life. Even there, extensive and systematic as is our knowledge, we have, I need hardly say, no power, as concerns any individual person, or any half-dozen persons, of hazarding an opinion whether they will or will not live for one year or for twenty; and even as applied to numbers of human beings the average duration of life at which we arrive by means of statistical inquiries amounts to no more than a probability, and a probability of a low order compared with the rigid exactness of such primary physical laws as those, for example, of gravitation and definite proportions.

It has been said sometimes, and especially of late years, that certain kinds of Statistics prove that the human will operates *necessarily* within the groove, as it were, of some recurring cycle. I confess it has always seemed to me that the great disturber of all statistical uniformity and averages is precisely the uncertain operation of the human will. Let me again repeat that Statistics, as applied to man in society, are no more than carefully recorded observations of occurrences which take place among a certain number of human beings living under certain conditions. But the actions of human beings are dependent upon ideas and convictions; and alterations in ideas and convictions inevitably change and disturb the nature of the kind of occurrences capable of statistical record. I suppose, for example, that thirty years ago it would have been easy to have constructed a table drawn from materials existing in Jamaica, showing the number of cases of ill-treatment of negroes by their English owners on the average of some term of years; and upon such a table it might have been possible to construct an ingenious Necessarian theory of the operation of the human will in the flogging of black men and women. But a change has taken place in the ideas entertained by the English people of the lawfulness of slavery. These ideas have attained the height of emancipation. Slavery has happily been put an end to, and the kind of statistical evidence I have pointed out has disappeared altogether. The same reasoning may be applied to a variety of other cases.

But as concerns the important class of Statistics which exhibit the average number of Births and Deaths, it is plain that such a record includes mainly physical events; for the number of births and

deaths occurring in a given time, in a given population, is obviously determined almost wholly by a class of physical causes—age, food, shelter, comfort—to which I need not refer in detail; and the same observation applies in a large measure to marriages.

We may be reminded, perhaps, that there are other classes of events recorded and tabulated by statisticians which cannot be referred to physical causes—such as the average number of mis-directed letters, lost umbrellas, and other minor casualties—and that these records present us with highly uniform results. I freely grant that many of these results are exceedingly curious; but I wholly demur to the suggestion that they supply any adequate foundation for so vast a doctrine as the Necessarian theory of the operation of the human will, or even for the reality of what are called “Statistical Laws.” I can only admit the validity of the term “law” where there is a power of accurate prediction in individual cases; and we shall scarcely be expected to believe in this power of individual prediction as regards misdirected letters or lost umbrellas.

I have been thus careful to point out to the Section what seem to me to be errors and sources of danger in some recent views of the province of Statistics, not, as you will easily believe, with any design of derogating from the dignity and value of statistical inquiry, but because I desire to be governed, from first to last, by that spirit of truth and candour which must guide all our investigations and discussions at these meetings; and because no good results can follow from the introduction into any department of knowledge of pretensions which are not justified by its scope and conditions.

I have said that the principal fact in the history of Economic Science during the last thirty years, has been the more systematic and extensive application of the Experimental Method throughout the entire range of questions with which the science is concerned. It is right that I should give you some examples of this change. The experimental method has been largely applied in every direction, but if I was asked to point out those directions in which, perhaps, the most marked results have been produced by its application in modifying conclusions which were previously entertained, I should select six subjects, which will be easily recognized as among the most important in the whole range of the branch of knowledge to which they belong. I should point to the application of the test of experience and observation in modifying the doctrines which formerly prevailed:—

First, as regards the conditions which govern the progress of Population in modern civilized communities;—second, as regards the true principles to be followed in founding and managing Colonies;—

third, as respects legal interference with Labour in factories and elsewhere;—fourth, as regards the leading doctrines relative to Currency Banking, and Prices;—fifth, as regards the nature, origin, and operation of Rent;—and sixth, as concerns the effects to be produced by a large and sudden increase in the quantity of Metallic Money in use in the commercial world.

I have enumerated these six subjects, and if the time and occasion were appropriate it would not be difficult to show that in each of them extensive and fundamental changes have been introduced during the last thirty or forty years by the application of the test of experiment and observation. I am not, of course, going to detain you by a discussion in detail of all six of these subjects. I will refer only to two of them. I will refer to the topics which relate to the Legal Interference with Labour—and those which relate to Currency, Banking, and Prices.

When I advert to the first of these topics—that of the Legal Interference with Labour,—I am aware that I am speaking in a place where the subject is far better understood than perhaps anywhere else; and in an assembly whose practical knowledge of the question far exceeds any knowledge I may possess, founded as that knowledge is upon theoretical inquiries only. Until about thirty or thirty-five years ago there were probably no portions of political economy which seemed to be more free from doubt than the doctrines which it then included as regards absolute non-interference by the State in bargains between masters and workpeople. If there was one economic canon which more than another seemed to all the writers from Adam Smith to Ricardo to be entitled to rigid observance, it was the rule of *laissez faire* in every part of the dealings between employers and employed. It was maintained that in such questions it is the function of the Government to stand altogether aside, and to leave the parties to settle their own differences as may seem to them to be best. And when we look back at the history of our own and other countries—when we remember the incessant and mischievous interference inflicted upon all sorts of occupations by syndics, guilds, and Government officers, from the days of Charlemagne down to our own time—when especially we recall the superlatively vicious legislation of France and Germany in this respect, century after century,—we cannot wonder that the founders of the science with which we are here concerned, were led to express, in the most distinct terms, their adhesion to the doctrine of *laissez faire*, especially in relation to employers and employed. And this doctrine requires but few qualifications so long as it is applied to adult males working singly, or in families, or in small groups, each man being free to make his own independent bargain. But when a new state of things was intro-

duced—when manufactures came to be carried on by large masses of human beings, closely congregated together, and including women and children,—then new conditions were brought into play, and it became necessary to re-investigate the principles which previously had been accepted as sufficient. This re-investigation led to those new doctrines of the necessity of State Interference, which ultimately carried the Ten Hours Bill. When these new doctrines were first heard of they were naturally met on the part of the capitalists by the objection that to limit the hours of labour would mischievously and fatally discourage capital in its application to manufactures. What was the answer to this objection? The controversy, as you know, extended over many years, and gradually it was proved by experiment and observation that when capital, as in the case of manufactures, depends for profitable results upon the employment of large masses of workpeople, a great proportion of whom must be women and children, it is the direct and plain pecuniary interest of the owner of the capital to take especial care of the physical energy and condition of his workpeople. Our friend Mr. Edwin Chadwick, whom we are glad to see here, will tell us, too, as the result of most elaborate investigations, that even as regards machinery in its most complete development, and involving, therefore, the least aid from manual labour, real efficacy of exertion does not mean unlimited hours of work, but skilled efforts judiciously applied during the best chosen parts of the day. Discussions and evidence, all pointing steadily to such conclusions as these, gradually introduced modifications into the former views of *laissez faire* as being in itself the perfect and sufficient rule for arrangements between masters and workpeople in manufacturing trades. I need not tell a Lancashire audience—speaking after many years experience of the Ten Hours Legislation—that the results are something of which all parties may well be proud. There is, in truth, a general assent that if there has been one change which more than another has strengthened and consolidated the social fabric in this part of the island—has cleared away a mass of depravity and discontent—has placed the manufacturing enterprise of the country on a safe basis—and has conferred upon us resources against the effects of foreign competition which can scarcely be overvalued—it is precisely the changes which have been brought about by the sagacious, and persevering, and successful efforts to establish in manufacturing occupations a sound system of Legal Interference with the hours of labour.

The second class of topics to which I have to advert are those relating to Currency, Banking, and Prices.

There used to be received, with scarcely any dissentients, three principal doctrines relating to a Convertible Paper Currency. It used to be held that fluctuations in the amount of bank notes in the

hands of the public operated in some direct manner on prices;—that consequently the convertible paper currency must be properly regulated, so that vicious fluctuations of prices might be prevented;—and thirdly, that what were called appreciation and depreciation of the currency, and not the operations of supply and demand, and capital and credit, govern the foreign exchanges, produce over-trading, and lead to financial disasters and panics.

But by a persevering and systematic application of the test of observation and experiment, it has been proved, by evidence so extensive and various that we may well claim for it the force of demonstration;—first, that fluctuations in the amount of a paper circulation strictly convertible into coin does not govern prices at all, but that prices are governed by supply and demand, and by operations of capital and credit. Second, that due and rigid enforcement of cash payment is the only wholesome regulation which a paper circulation requires;—and thirdly, that bank notes are no more than the mere small change of the ledger, and that the phenomena which are really worth attention are not infinitesimal fluctuations in the amount of bank notes, but changes in the rate of interest.

I am perfectly aware that these conclusions are still somewhat hotly contested by a large and intelligent party, and by a party in every way entitled to be heard. For myself I shared them with, and I chiefly learnt them from, perhaps the best, and wisest, and most accomplished person it has so far been my fortune to meet—I mean the late Mr. Tooke; and I am quite ready to take my share in defending doctrines which are known by his name.

Before passing to the next part of this discourse, I may here appropriately suggest that there is one result of our more exact knowledge, which may be regarded as a sort of corollary of the review we have just taken of some leading topics—and it is this result,—namely, that while it used to be very commonly said in the early days of Political Economy, and even within the compass of this generation, that though we knew a great deal about the problems which affect the production and accumulation of wealth, we knew very little about its Distribution. We are now beginning to see that if we properly understand the principles which should guide us in promoting the production and accumulation of wealth, we may safely conclude that the process of distribution will take care of itself in a very wholesome and efficacious manner.

I have referred to five classes of results with which Statistical inquiry is mainly concerned. Let me now state in, outline, as shortly as I can, the groups of topics which may be considered to constitute the domain of Economic Science. These seem to me six-fold—namely, first, all such problems as relate to the real nature of

Wealth, and to the production and growth of wealth in a community;—second, all such as relate to the Exchange of commodities, that is to say, to inland and foreign Trade;—third, all problems relating to Taxation and Finance;—fourth, problems relating to Currency, banks, and prices;—fifth, problems relating to the Wages and the hire of labour, and the division of employments;—and lastly, problems relating to the functions of the State as regards Interference with the economic relations of its subjects.

With respect to the first *three* of these groups of problems, it is probable that no further important doctrines remain to be discovered. There is little further to be found out concerning the real nature of wealth, concerning the true principles of exchange, or concerning taxation and finance, beyond the conclusions already established and expounded.

The fields of inquiry to be still explored and cultivated, are those which lie in the direction of Currency, Employments, and Interference by the State; and if I may express an individual opinion, it would be to the effect that it is probably, as regards the last of these subjects, namely, Interference by the State, that the most remains to be done, and difficulties of the gravest kind remain to be surmounted. We seem to be gradually arriving at the conclusion—and a conclusion founded on no slight evidence—that as society advances, especially in an old country,—as social relations become more complex,—there grows up a class of difficulties which cannot be dealt with satisfactorily by individual exertion, and therefore a class of difficulties which must be dealt with by the State. While on the one hand we are bound to maintain a salutary dread and a constant suspicion of the interference of the State beyond the narrowest limits, so on the other hand we cannot disguise from ourselves that there are a large class of cases in which individual agency wholly fails to protect the plainest individual rights.

The conclusion of the whole matter seems to be, that as the result of the last Thirty Years, full as that period has been of scientific achievements, we may justly claim for the services rendered by Economic Science and Statistical Inquiry, a place in the first rank.

That in the second place we may safely consider that we have now arrived, in these branches of knowledge, at a kind of intermediate point at which, after long debate, many of the earlier controversies are finally settled, and from which we see our way to a higher level.

That thirdly, the least doubtful result of our experience has been the discovery that the most solid progress is made by guiding ourselves in the main by close observation of facts, and by employing

speculative and hypothetical reasoning under the most cautious conditions, and always with distrust and reluctance.

And lastly, that the time has perhaps come when we may with advantage bring into close contact, as departments of the same subject, several of the branches of inquiry which are specially devoted to the study of social phenomena.

But there is a larger moral behind these conclusions. What is it that has made the last thirty years an age of revival and restoration in the largest sense? Is it not that we have come vividly to perceive two things, namely—first, that human life is fitted for higher ends than to be given up to incessant labour and devoted to the pursuit of excessive gain; and second, that for the attainment of these higher ends we must cast aside all false supports and contend with no hollow earnestness for the highest place among modern civilized States. It is no small thing for a community to become convinced, as we have become convinced, that it is possible to work over much—that material wealth, wholesome and reasonable in its right place, may be won at too great a cost—that something real is to be gained by allegiance to Truth for its own sake—and that overflowing comfort and social rank are, after all, not idols of the most worthy type. Nor is there any occasion to affect sentimental grounds for this less material philosophy—for it may be stated as a kind of universal corollary of all economic systems, that no societies so rapidly pass away as those which pursue only material objects. To be efficacious, even for its own ends, wealth must be used as an instrument; and to use it rightly there must be intelligence, taste, and imagination, as well as industry, frugality, and skill.

In this country, also, we must be watchful and patient in our search for new truths. We are engaged in a fair and open, but also in a sharp and earnest rivalry with all the world, and the victory must fall to that competitor who, other things being equal, has on his side the most profound and extensive knowledge. There are certain landmarks in all branches of knowledge which no wise man will attempt to disturb, except upon the strongest grounds. Still, subject to these reasonable restraints, it is salutary that the lists should be kept freely open to all comers. If the assailants of received opinions are in error they will fail, and their failure will add new strength to previous conclusions. If they succeed, they will become public benefactors. We are not, however, to be credulous or weak-minded. We are to be reasonably jealous of the cry of new lamps for old—remembering well how often the real meaning of the cry is an audacious invitation to exchange diamonds for dross. But we are also to remember that the most efficacious conservatism of the past is to present an open countenance, and to apply an

exploring hand, to the novelties of the present. To deal with them frankly, courteously, and plainly. To welcome them if they be true, and expose them if they be false.

If we pursue this policy we need not trouble ourselves about the time to come. The world is not put together so unskilfully that it is in danger of falling to pieces when the warfare is directed only against ignorance and its evil brood. We need not speculate on the moralizings of some future Australian islander over the ruins of London. Such a traveller is far more likely to find a palatial city spreading in graceful terraces along both sides of the Thames until Windsor Castle becomes a west end mansion, and suburban villas are scattered over the hills of the White Horse.

No instance can be found of the decay of a community in which the humbler classes, in full possession of personal freedom, and wholly apart from any artificial reliance or support, could each by their own labour earn the means of substantial independence. If for any length of time a community be strong and sagacious enough to solve practically the great problem of combining the largest and most orderly freedom, with ample wages, earned in fair competition with all the world, we may depend upon it that the foundations of such a State are too firmly set to be shaken by any ordinary catastrophe. And it is because in this country we have done not a little during the last thirty years to discover and fashion the corner stones of so noble and solid a fabric, that we are justified in looking towards the future with hope and confidence.

CONCLUDING PROCEEDINGS OF SECTION F.—*Tuesday,*
10th September, 1861.

The following report of the concluding proceedings of the Section on Tuesday, the 10th September, is from the "Times" of the following day:—

The Right Hon. J. Napier proposed a vote of thanks to the President for the very efficient manner in which he had discharged his duties in presiding over that important Section. They had sat for a week, and during that time every variety of subject had been brought forward; and they had had the advantage of the skill and masterly ability of the occupant of the Chair. He was one of a class of men who were peculiarly entitled to respect—men who by the self-elevating power of intelligence and vast industry had raised themselves to a distinguished public position, and who stood well with all their well-thinking countrymen. He rejoiced to see him in the chair, his presidency harmonizing so well with the position of the President of the Association (Mr. Fairbairn), who was the honour, and ornament, and praise of the town. He was sure they would all have the greatest pleasure in passing a vote of thanks to his friend, Mr. Newmarch, for the able, efficient, and instructive manner in which he had discharged the duties of President of that Section. (Cheers.)

The Mayor of Manchester said he had much pleasure in seconding the resolution. All of them must have derived satisfaction and profit in attending the Section; and especially in listening to the clear and perspicuous manner in which the President had stated the merits of every question which had come under discussion.

The resolution was carried amid general applause.

The President said, I am very much obliged to you, ladies and gentlemen, for the vote of thanks which you have been good enough to pass for the very humble services performed by me in this chair. I certainly came to Manchester fully prepared to carry out so far as I could any duties which might fall upon me; and I am glad to find that the way in which those duties have been performed has met with your approbation. (Hear, hear.)

I will take the opportunity which is now afforded to say a few words in review of what has taken place in this Section during the week.

I cannot but lament that our time has been insufficient for the task we had set ourselves. We certainly have made some advance upon the arrangements which have prevailed at former meetings of this Section; and I hope that next year, and in future years, we shall succeed more entirely in confining our labours to such questions as belong properly to Economic Science. There is less reason why

questions of a general nature should be obtruded here, since there is a separate association for the advancement of social science, where questions of a general nature may be introduced with more advantage, and discussed with more benefit. But so far as our labours have proceeded, I find that we have got through between forty and fifty papers, which will admit of being somewhat distinctly classified.

In the first place we have had a series of papers, relating to what I may call Lancashire topics. Among these I will give the first place to an excellent paper by Mr. J. Shuttleworth, pointing out to us the working of the Manchester Gas Act; Mr. Chadwick gave us a great deal of valuable information on the progress which has been made by Manchester and Salford during the last twenty years. It was to be expected that a meeting of this kind held in Manchester could scarcely be considered effective unless the question of Cotton was discussed; and we have largely benefited by papers read by Mr. Bazley and Mr. Ashworth; and we had also a short paper from Mr. Alderman Neild, which was highly acceptable, inasmuch as he stated facts of an order which we are not always able to obtain. We had a paper from Dr. Strang on the Embroidery trade of Scotland and Ireland. Also, under the head of Lancashire topics, we had a valuable paper from Dr. J. Watts, on Strikes. We had a series of papers on Co-operative societies, beginning with one by Mr. Potter on the general principles of the question, and followed by two statements from Rochdale, informing us in a very succinct and clear manner of the results of the remarkable experiments going on in that town.

The second group of papers related to questions purely Statistical. First in this list I must refer to a remarkably excellent paper by my friend Professor Rogers—a paper compiled by him during the last few months with so much labour, perseverance, and skill, and containing a collection of Prices in this country in the sixteenth century, the period of the first influx of gold from the New World. I regard that paper as one of the most valuable fruits of the Statistical Congress of last year. I hope it is but the precursor of many more, and that the example which Professor Rogers has set will lead to similar researches being undertaken and carried on not only in this country, but in other parts of the world. (Hear, hear.) Dr. Farr gave us some acceptable information on the health of the British Army—a subject with which he is officially connected, and upon which he is eminently qualified to express an opinion. Then we had a valuable paper from Mr. Purdy on the comparative Pauperism of England, Scotland, and Ireland; and we had also an elaborate paper from Mr. Valpy, stating, in a convenient form, facts relative to the Trade between this country and France. We have to-day had several papers on the late Census, beginning with that of Mr.

Hammack, who comes among us speaking with the authority due to one of the chief officials connected with the operations by which the enumeration of the population has been carried on and completed. We have had also a statement from Dr. Strang of the results of the late Census as regards Scotland. On Saturday we heard from Colonel Sykes, one of the oldest and staunchest friends of this Section, an elaborate paper on the trade of India and China.

The third division consists of questions purely Economical. I confess I should have been glad if we could have had more of those papers, and I again repeat the wish I have already expressed, that in future years and in other places where this association assembles—and I think we may fairly assume that Section F will remain an integral part of the association (hear, hear)—a larger number of papers of a purely economical nature may be read—papers raising, as that of Professor Rogers to-day, purely economical questions, and going straight to some great doctrine, the discussion of which must be attended with good results. Foremost in this group of economical topics is the series of papers on national Taxation. Those papers you all will remember, inasmuch as they were before us only yesterday; but as it fell to my lot to take a leading part in the discussion, I pass them over simply with this reference. As regards special taxation, we had a timely paper from the Rev. Canon Richson, on the Income Tax—a paper which there is reason to hope may lead to ulterior results. (Hear, hear.) Under the head of distinctly scientific subjects, we had a second paper from Professor Rogers, "On the Definition and Incidence of Taxation;" and we have heard to-day an address from Mr. Fawcett, "On the Effects of the New Gold Discoveries."

In the fourth place, on general topics we have heard this morning Mr. Heywood on the subject of "Endowed Schools;" Dr. Hume, "On Education in Liverpool;" a short and interesting statement from Captain Donnelly "On the Progress made in the Government Examinations in Science;" and also a paper by Mr. Ashworth, "On Capital Punishments;" while yesterday afternoon we were instructed by hearing Mrs. Fison dilate so charmingly in the midst of us "On Sanitary Reform." Beyond these there were several contributions, in themselves of a minor kind, but well worth listening to, and raising points which I am sorry the Section had not time to discuss as they deserved. The discussions which have taken place have been distinguished, I think, beyond any occasion I can recall in connection with these meetings, by earnestness and courtesy, and by close adherence to the points which it was material to consider. They have been distinguished by these qualities in a happy and prominent manner. So completely has this been the case that I hope I may indulge the belief that scarcely any members of

the British Association who, during the last four or five days, have done this Section the honour of attending it, will carry away any recollections which are not of an agreeable order; that they will look back upon this meeting as an occasion on which they heard many new truths, or as a meeting at which they first learnt to regard important questions from a new point of view. (Cheers.)

Now, ladies and gentlemen, allow me, in conclusion, to say, that for the success which has attended our meeting here, we owe a deep debt of gratitude to every party connected with the city of Manchester. From the Mayor of the city down to the meanest cabman, I believe there is not a single individual throughout this great community who has not felt it to be a special personal obligation to do what lay in his power to promote the success of the meeting. (Cheers.) I, therefore, in your name, and in the name of Section F, tender my best thanks in the first place to the Municipal authorities who are represented on this platform by the worthy Mayor of the city. I thank, in the second place, the Commercial community for the munificent manner in which they have thrown open their establishments, and for the arrangements they have made for our benefit and amusement. I tender our thanks, too, to the private inhabitants, who have exercised so wide a liberality in throwing open their houses for our entertainment and reception; and, in the fourth place, I tender our best thanks to the local Committee and the local Secretaries, who not merely during the last week, but for a great many weeks preceding the opening of the meeting, have been untiring in their exertions to contribute to our comfort during the proceedings. (Hear.) In return for all these favours conferred, we are entitled to believe that the meeting has been productive of no small amount of good, and that the seeds here sown will blossom and fructify luxuriantly in the time to come. I will only add, as regards myself, that if I have in the least degree contributed to that end, I shall be amply repaid for the labour I have undertaken. (Cheers.)

A vote of thanks to the Secretaries was proposed by Mr. Webster and seconded by Dr. Farr.

In responding Professor Rogers said the more they saw of Manchester the more they liked it.

*The HEALTH of the BRITISH ARMY, and the EFFECTS of RECENT
SANITARY MEASURES on its MORTALITY and SICKNESS. By
DR. FARR, F.R.S.*

[Read before Section (F), at Manchester, on Saturday, 7th September, 1861.]

LORD HERBERT of Lea, in the prime of life and in the midst of his labours to improve the Health of the British Army, is dead, and his loss has been felt by his countrymen, who justly appreciate the services of their departed statesmen.

The defects which had before been expressed in the lifeless figures of returns struck every heart when they appeared in the thinned ranks before Sebastopol, in the sick-freighted ships of the Black Sea, and in the hospitals of Scutari. From his position, Mr. Herbert felt these defects more poignantly than any of us, and since that time, neglecting the enjoyments which high rank and a splendid fortune placed at his command, he devoted himself to the sanitary reform of the army—first in a Royal Commission, then in commissions for carrying out its recommendations, and, lastly, as Secretary of State for War in Lord Palmerston's administration. Notwithstanding the heavy duties of that office, he continued to act in a Royal Commission; and some of his last recorded words were inquiries into the means of saving the lives of our soldiers who perish in hundreds from the bad sanitary arrangements, rather than from the climate of India.

His frank and winning manner, his knowledge, and his eloquence enabled him to overcome many obstacles; and he had some courageous colleagues, among whom I must name as the foremost Florence Nightingale who shares without diminishing his glory. The difficulties he encountered can only be understood when the history of these years is written. Labour keeps us alive, so I cannot presume to say whether his life was cut short by his harassing work; but Sidney Herbert was animated by the feelings of him in his ancestral line,* who, when he lay on the battle-field fainting and thirsty from the loss of blood, resigned the glass of water to the dying soldier with the words, "Thy necessity is yet greater than mine." Lord Herbert—I appeal to all who knew him—loved the soldier so well, that for his sake, and to promote the efficiency of the British army, he would willingly have laid down his own life.

Happily before his death he witnessed some of the results of his measures: he learnt the marvellous sanitary success of the China expedition, he received the first annual report of the Director-General of the Medical Department of the Army, showing "a

* Sir Philip Sidney.

"remarkable reduction in the mortality of all classes of troops," and, as a good and faithful servant of the Crown, he received a signal mark of the gracious approbation of his Queen.

Lord Herbert did not think it enough to point out evils in a report; he got commissions of practical men nominated by Lord Panmure, placing himself at their head, to put an end to these evils. The results of one of these commissions are described in a report by Dr. Sutherland, Dr. Burrell, and Captain Galton, and its measures for improving the sanitary condition of barracks and hospitals are so well conceived, that they deserve to be studied by all who take an interest in the health of armies. The sanitary and medical reports of which Dr. Logan and Dr. Mapleton give samples, with the accompanying papers, will every year increase in value. The commission for introducing improvements in the vital statistics of the army, consisting of Lord Herbert, Sir Alexander Tulloch, and myself, laid down an elaborate plan for the observation, record, and analysis of the sickness, diseases, and casualties of the army at home and abroad, in peace and in war. That plan is in operation; and I request your attention to some of the results deducible from the first report.

Under the new system, an exact account is kept of the diseases of every soldier from the day he enters to the day he leaves the army; and the returns are so arranged as to exhibit the diseases of every regiment separately, as well as the amount of disability, invaliding, and death produced by each malady, and, as far as possible, by each conspicuous cause. At the end of every week the Director-General receives from each corps a return of its state and of its changes. The contrast at Aldershot on trial was found to be remarkable in different regiments, and so clearly demonstrates the utility of publication, that I trust this remarkable weekly table will ere long be promulgated. The variable sanitary state of the army is thus brought clearly before the eyes of the Medical Department, the commanding officers, the Commander-in-chief, and the Secretary of State, so that evils, instantly known, can often be suppressed as they arise. The books are now made portable, and so simplified, that they can be kept in the field as well as in barracks.

The annual report is to contain a classification of all the observations of the year, in the nosological form adopted by the Registrar-General. The first report has been prepared, with his wonted ability, by Dr. Balfour, from the old returns partially; and, therefore, presents an incomplete view of the whole subject. But the results, so far as they go, are as interesting as they are important.

The army is not in England a repressive police force: with the gallant volunteers, the militia, and the royal navy, it guards our coasts, protects the empire, and is ready to put forth the great

power of England, should the peace of Europe ever be madly broken. The lives, the industry, the wealth, and the honour of the country are safe under its standards. Friendship with all our neighbours is the desire of the whole nation; but surrounded as we are by great warlike Powers, and by dynasties kept afloat on military glory, the importance of the efficiency of the army cannot be overrated. Now that efficiency depends primarily on the health of the troops; the health being expressed by the relative numbers of healthy, sick, and dying, out of a given strength.

I first request your attention to the state of the army at home. That consists of different arms, and with embodied militia, its strength in 1859 was (omitting commissioned officers) 90,763, including, besides complete corps, detached companies of regiments in India and elsewhere, in what are called *dépôts*; of which the advantages are, to say the least, very equivocal. The army consists of men in the prime of life, between the ages of 20 and 40, very much under control in every respect, but generally unmarried, and living hitherto together in barracks. We contended that, whereas 17 in 1,000 of these men at home had died annually, a body so selected, well fed, well lodged, and well handled, morally and physically—admitting only recruits satisfactory to the examining medical officer, and parting constantly with its invalids—should not experience a higher rate of mortality than that expressed by 8 in 1,000; the rate of mortality actually experienced by the population at the corresponding ages in the healthy districts of England. This result was nearly achieved in the corps at home in 1859. The mortality of the Foot Guards had been 20 per 1,000 (1837-46), and fell to 9; that of the infantry of the line had been 18, and fell to 8; which was also the mortality of the cavalry, the engineers, and the artillery. Some obvious sanitary arrangements were introduced, and instead of being shut up in towns, many of the men were sent to healthy camps: the above are some of the results. The annual deaths among all arms of the service at home had been 17·5; the deaths at Shorncliffe and Aldershot in the three years 1857-58-59, were at the rate of 5 in 1,000.* The previous excess was referable to zymotic diseases, such as fevers, cholera, diarrhoea—and to consumption; the effects of crowding in barracks, of bad ventilation, bad water, bad drainage, badly chosen sites, bad cooking arrangements, and the absence of the means of cleanliness.

The sanitary measures were commenced at home, but in Canada and the North American stations, in the Mediterranean, in the West Indies, in St. Helena, in the Mauritius, and in Ceylon, improvements are observable. India, where we have 80,000 English troops, remains to be dealt with by the India commission.

* "General Report of Barrack and Hospital Commission," p. 12.

The colonies of North America, Australasia, and the Cape of Good Hope, are for British troops genial climates, differing much in their meteorology, however, from England. In Newfoundland, Nova Scotia, New Brunswick, and Canada, where 4,789 troops were stationed, 43 died; and the mortality was at the rate of 9 in 1,000. Comparing the rates of mortality in the ten years, 1837-46, with those of 1859, we have these results: the rate in Newfoundland fell from 11·5 to 4·8; in Nova Scotia and New Brunswick from 16·0 to 7·2; in Canada from 17·4 to 10·4. The proportion of sick was greatly reduced at the same time. Exposure to aguish ground, the bad sanitary state of the towns, excess of spirit drinking, and overcrowding in the barracks, are noted evils in North America. A most successful expedition of troops to found the capital of Columbia was dispatched, and the selection of the site, the food, clothing, employment, instruction, and amusement were excellent; so that out of 150 men only one died, by accidental drowning. The women and children, equally well provided for, were equally healthy. Dr. Seddall gives an interesting account of this model military expedition into a new country.

The sway of the Secretary of State for War extends over the continent of North America—from Newfoundland to Fraser's River and Vancouver's Island, and it also reaches the southern hemisphere, where, in Australia and New Zealand, 2,839 troops were stationed, of whom 26, or 9 in 1,000, died.

At the Cape of Good Hope the average strength was 4,322. The mortality per 1,000 was at the rate of 11 among 3,096 men on the eastern frontiers, 12 among 562 men in Natal, and 32 among 664 in Cape Town. The latter high rate was the result of the introduction of the 59th regiment from China; so if we exclude that regiment, the mortality of the army in the Cape Colony was 12 against 16 in former years. The sickness of the 59th rapidly declined shortly after its arrival at the Cape.

Bermuda—in the Atlantic, lying between Canada and the West Indies—enjoys a delicious climate; yet there, in the year 1843, yellow fever had cut off one-sixth part of the troops serving at St. George's; and the mortality in the years 1837-46 was at the rate of 84 in 1,000. 1,074 troops were stationed on the island in the year 1859, and the deaths were at the rate of 14. The barracks are defective, and half of the force in the summer months was placed under canvas, with most salutary results.

In St. Helena—another small island, but within the tropics—465 men were stationed, and 4 died,—two by accident—the fall of a rock, and of a tree. Two invalids sent home also died. The mortality, exclusive of invalids, which was at the rate of 17 fell to 9 in 1,000. A regimental garden furnishes abundance of vegetables; and

fresh beef or mutton is issued on three days instead of two. The inferior salt beef and pork from the Cape, is to be superseded by better articles from England for the other four days of the week. The relief of the crowded barracks by encamping the men does not appear to have been resorted to: cases of fever and intemperance are noticed.

The Mediterranean stations have an island character, and the temperature is much higher than it is in England. In this sea we have 14,123 troops,—5,153 in Gibraltar, the western gate of the Mediterranean; 5,810 in Malta, interposed between Sicily and the north of Africa, on the way to Egypt; 3,660 in the Ionian Islands, lying against Greece and the opening of the Adriatic. The mortality in Gibraltar, which had been at the rate of 14, was at the rate of 8 in 1,000 in 1859. Malta was as fatal to its garrison as it had been before; 19 in 1,000 died. Out of a strength nearly equal, 40 men died in Gibraltar, and 101 in Malta. The fevers in Gibraltar were apparently increased by over-crowding; and it is worthy of remark that the 25th Regiment, 1st battalion, encamped on the isthmus, had the least number of attacks of continued fever (55 per 1,000), while the 100th regiment, recently raised, suffered in the barracks to the greatest extent (194 per 1,000). The water supply is limited and the drains are defective. But in Malta, continued fever, dysentery, and diarrhoea were much more fatal, as they caused 10 of the 19 deaths per 1,000. The water in the tanks was bad; the barracks were over-crowded; and the heat was excessive in the third quarter of the year, when the epidemic was most fatal. It was not the hot African winds that slew these troops, for the mortality was localized, falling most severely on the Rifle Brigade and on the 2nd battalion of the 23rd Regiment, quartered in the lower part of the fort of St. Elmo, which, almost on the sea-level, is inclosed so as to exclude the breezes. Across the small parade ground in front of the barrack pass the contents of the sewers from the military prisons, accumulate there, and infiltrate the earth in the neighbourhood. Offensive gases escape, and their liberation was facilitated by turning up the earth to lay down gas pipes. The fever raged until the rain began to fall, and cool weather set in.*

In the Ionian Islands also, although the general mortality fell from 18 to 13, fever prevailed in Corfu; so that while of 997 men in Paxo, Santa Maura, Cephalonia, Zante, Ithaca, and Cerigo, only 2 died; out of 2,663 in Corfu and Vido 41 died. The troops are everywhere affected by the sanitary state of the population near which they are stationed; and the sanitary state of Corfu is most defective: the sewage renders the tideless sea putrescent, and sometimes the offal of fifty cattle is thrown in a day into the seething waters from the slaughter-house at Fort Neuf. Now troops are

* See Report, p. 38—39.

stationed in that fort. Little can we wonder, then, that typhoid fever and scarlatina smote the men; so that by the former 16 per 1,000 died in the 2nd battalion of the 4th Regiment. The 2nd battalion of the 2nd Regiment had two companies under canvas at Fort Abraham, and the mortality of the regiment by this disease was at the reduced rate of 5 in 1,000.

Their causes are declared by the zymotic character of the diseases of the force in the Mediterranean: dysentery, diarrhoea, fever (typhoid or typhus), and ophthalmia. The invaliding from the stations is considerable ('008); Malta sent 20 men home with bad eyes.

One of Lord Herbert's last acts in office was to dispatch Dr. Sutherland and Captain Galton to inspect the barracks, where so large a force has hitherto suffered so much; and we heartily wish them success. They may, perhaps, by sanitary teaching in commanding points, throw light on the regions where the rulers spread ignorance and fatalism, fever and plague, around the Mediterranean sea; for those beautiful lands have in them all the elements of abounding health and life.

In the WEST INDIES 8,659 troops were stationed, and the mortality was at the rate of 16 in 1,000; varying from 6 in Barbadoes, 14 in Jamaica, 14 in British Guiana, to 90 in Trinidad, and 20 in the other islands. The coast of tropical America is the native soil of yellow fever; and these islands of the west, extending from the Gulph of Florida to Trinidad at the mouth of the Orinoco, are subject to its visitations, as they are to earthquakes and hurricanes; but by ascending from the fertile alluvial coasts through rich valleys and magnificent forests to the heights of the mountains, we pass into salubrious fields, and breathe under a purer sky. The British troops, therefore, may, either by a happy selection of stations, be so placed as to be in little danger; or, they may be exterminated in bad barracks in the close malarious marshes of the plain. The high mortality of the troops in Trinidad was the result of yellow fever, which was apparently generated in St. James's Barracks, with its faulty drains,—scarcely ever flushed except during the heavy rains. The epidemic ceased when the troops were encamped on the savannah, and it did not spread over the island. A commission was subsequently appointed to select a hill-site; and, if troops are to be kept at all on such an island, the site about 2,200 feet above the sea-level, selected by Dr. Jameson, appears to be the most eligible.

Vegetables are furnished in sufficient abundance everywhere in the command except in St. Lucia; and the commissariat supplies fresh meat on six days, salt beef or salt pork on one day of the week. Formerly salt meat almost exclusively was given, which, by generating thirst, was an incentive to spirit drinking,—that bane of men living a listless life in the tropics.

In the twenty years, 1817-36, owing to evident causes, the mortality of British troops so moderate comparatively in 1859, was dreadful; they died through these long years at the average annual rates per 1,000 of 59 in Barbadoes, of 123 in St. Lucia, of 106 in Trinidad, of 84 in British Guiana, of 61 up to 307 in Jamaica!! At that time the troops in Jamaica "*were almost entirely quartered in the plains*, where the sources of fever abound;" whereas during 1859 three-fourths of them were stationed at Newcastle, on the hills 3,800 feet above the sea, where their mortality was at the rate of 8 in 1,000; while the mortality of the few men retained on the lowlands was still at the rate of 85. This remarkable improvement in the West Indies originated in the army medical reports instituted by Sir James McGrigor in 1816, but first digested by Mr. Marshall, Sir Alexander Tulloch, Dr. Balfour; and it dates back to, and adorns the present Earl Grey's administration of the War Office. Much, however, remains to be done if the present force is to be retained in the islands, or in Guiana on the continent. Ophthalmia and miasmatic diseases will recur unless the whole of the sanitary arrangements are revised and placed on a sound footing.

The tropical island of the MAURITIUS, over against Madagascar, on the way to the East Indies, is, like Jamaica, mountainous, well irrigated, fertile, and the centre of storms. 1,254 troops stationed there lost twenty men by death; so the mortality was 16 in 1,000, and half of it by miasmatic disease, namely, fever, diarrhoea, and dysentery. The fever portion of this was mainly brought from India; the diarrhoea and dysentery supervened in the 2nd battalion of the 5th regiment on arriving from England. The site of the hospital at Port Louis is objectionable; but the selection of a better depends upon the colonial funds, which we may hope will be forthcoming, if 1,254 of the best British troops are kept there, for, among other reasons, the protection of the islanders.

In Ceylon 913 British troops were stationed in 1859; and the mortality, which in 1837-46 had been at the rate of 42, fell to 32 in that year. This tropical island, covered with verdure, flowers, trees, and the most varied forms of animal life, has a low maritime belt, and a table-land surmounted by lofty summits, down which perennial streams flow—or fall in cascades—through the gorges of the valleys into placid rivers. Yet the diseases—diarrhoea, dysentery, and cholera—imply that the troops get bad water; and they were in fact stationed in great numbers at Trincomalee, and on the peninsula of Colombo, where the water supply is defective. While 76 was the rate at Trincomalee, the mortality at Kandy, 1,467 feet above the sea, was at the rate of 7 in 1,000; and there can be no doubt that by good arrangements the health of the

troops in future years may be sustained at a high standard in this "jewel of the Eastern seas."

We have arrived now on the frontiers of the Indian empire, where more than eighty thousand British troops are distributed over the presidencies and provinces around the Ganges and the Indus. However successful the East India Company may have been in the acquisition of territory and revenue, they did not discover the secret of maintaining in health the European troops in India. The men perished at the rate of 70 in 1,000 annually down to a recent date; and now that their numbers have been so largely augmented, the question has grown in importance. The Secretary of War had no direct control; so the army in India does not figure in the Report. Lord Herbert knew the full importance of the question as well as its difficulties; and by the command of Her Majesty a commission was constituted to inquire and to report on the sanitary improvement of the Indian army. Lord Herbert had served on commissions under administrations of which he was not a member; and with like patriotism Lord Stanley accepted the office of chairman. The sanitary reform of the Indian army Lord Herbert bequeathed, not vainly, I believe, to Her Majesty's Government.

The report, glances at China, and displays the deplorable destruction of our troops at Hong Kong, even in the year 1859. It also records the fact that, in conformity with the New Medical Regulations for Field Service, a sanitary officer was attached to the Quartermaster-General's Department to the expeditionary army, which marched unscathed through an insalubrious country on Pekin; all the wisest sanitary arrangements having been made at home, and efficiently carried out by the medical officers in China in conformity with their instructions. The commanding officers, Sir Hope Grant and Sir Robert Napier,* being men of the highest intelligence, made the new sanitary system an element of military success.

This was Lord Herbert's crowning work.

He left much unfinished abroad; and the army in India is devastated by zymotic disease. So constituted was he that his own short-comings dwelt on his mind. Still a great result had been realized in his lifetime: in England hundreds of lives had been saved; indeed, the numbers of a battalion living in arms at the end of the year 1859 would, at the previous rates, have then lain buried in their graves. Severe sickness also decreased, and the vigour of the whole body of healthier men no doubt increased in proportion.

The Report accounts for a part of the reduction in the mortality by the excess of recruits, and we know that the health of masses

* This distinguished officer, when in England, became acquainted with the sanitary proceedings in England.

fluctuates from year to year. It may go back, and the army may fall into its former unhealthy state, which was held by some people to be quite in the order of nature, as the same diseases had produced the same proportion of deaths from time immemorial. Statistics have been cited in support of the doctrine, that everything occurring successively in equal intervals through long periods of time, being governed by a law, is unalterable. The reasoning, "It has so happened in my days and my father's, and it cannot happen otherwise," has thus received an apparent sanction from science. But true science teaches another creed. If the causes remain the same the effects are the same; and it is only when the causes are beyond human control that the effects are inevitable. Now, upon examination it is found that the great causes of the excess of deaths in the army are completely under control in all ordinary circumstances, and as they vary their effects vary, so that if the measures that have been begun, be carried out we have no fear of the result: besides, if the causes of disease be studied—under the new system of observation established by Lord Herbert—new means of guarding the exquisite mechanism of the human frame will undoubtedly be discovered.

The success of this system of observation will depend on the efficiency of the Medical Department; so after re-organising it on a sound basis, Lord Herbert established a Professorship of Hygiene in the New Army Medical School. In his opening address at Chatham, he dwelt on the advantage of giving the medical officers such a position in the army as would enable them to apply their noble art to the prevention as well as to the cure of disease. He had made Mr. Alexander, who ably seconded all his efforts, Director-General; and, on the death of that fine and devoted officer, nominated Dr. Gibson his successor, who has offered, as the first fruits of his office, the report upon which I have commented.

The evidence before the Royal Commission proved that the health of the British army at home—of the warriors of the nation—was below the national standard; indeed, the deaths were doubled among the troops at home, quadrupled and septupled in the army abroad, including officers. The inefficiency from sickness was equally excessive; so that of *two hundred thousand men* in the estimates, probably more than *fourteen thousand* would be habitually in hospital in time of peace. In war, our armies invincible when in health, were weakened, paralyzed, or destroyed by disease. More than 21 per cent. of the victorious force in the Peninsula were in hospital;* the expeditions in the French war under the Duke of York, the Walcheren expedition, Sir John Moore's retreat, and finally the Crimean disasters, revealed the deplorable imperfections of our

* *Statistical Journal*, vol. xix, p. 247.

sanitary arrangements. The machine broke down precisely when its services were wanted.* With the evils of this rooted system Lord Herbert grappled. Unlike *Candide*, he did not allow that

* Marlborough possessed that real *clair-voie*—the art of preserving a British army in good condition; but it was lost in the eighteenth century; and this as much as the incompetency of the generals was the main cause of our military failures. Sir James McGrigor, in his autobiography, presents us with a type of the British army in the French war. He joined it at Chatham in 1794, and soon embarked for Jersey. His regiment, the Connaught Rangers (88th), infected in Chatham, was "overwhelmed with fever in Jersey," before it saw the enemy; and he, attacked by disease, had barely recovered in the country when he was ordered to embark for Ostend. Several officers and upwards of 100 men were left behind unfit for duty. At Breda fever broke out again, and 200 sick men altogether were under treatment instead of being in the ranks. The other British regiments suffered with not less severity. They were obliged to take chapels and all sorts of places for the sick. Here he saw the Duke of York. Fever again prostrated him; and after a narrow escape from death he embarked for home, convalescent. The fever-soldiers were collected at Norwich. He subsequently embarked for the West Indies. The 56th and other corps arrived in this unhealthy climate broken up with fever. Here he got dysentery, which then prevailed among the troops. The terrible yellow fever reduced whole regiments to skeletons. The first question put to an officer on entering the coffee room was, "who has died in 'the night?'" After returning to England he embarked for the East Indies. "Scarcely a month at Bombay," he says "I accumulated an *hospital full of sick*, 'the prevailing diseases being *dysentery* and *hepatitis*.'" In 1801 he went with the British expedition to Egypt, and there he had a fever, which it was thought would be "plague," by which his regiment was smitten; and he adds, "by the blessing 'of Providence alone I escaped.'" The army suffered also from ophthalmia, and brought the epidemic to England, where it attacked many people. At Windsor, he says "the King, from under a green shade, looked at me; I expressed my regret 'to see his Majesty suffering in his eyes. 'Aye, aye!' replied he, 'this is one of 'the fruits of the expedition to Egypt.''" The British army, after it had fought the battle of Corunna (January 14, 1809), was wretchedly crowded in transports and ships of war, and upon its disembarkation filled Portsmouth with fever, which spread to the militia and the surrounding districts. The expedition to Walcheren landed upon that island on August 15th, 1809; on September 28rd, 9,046 men were sick, and after immense losses the remnant of the shattered forces embarked for England. Sir James McGrigor was dispatched to their aid, and this time was not himself disabled. Made chief medical officer under the Duke of Wellington in the Peninsula, he saw the British army attain,—after immense losses by disease and death,—vigour and health before it passed the Pyrenees. The brigade of Guards, cut up by fever and disease, was sent to Oporto, and only rejoined the army after the battle of Vittoria.

The men always fought well, even under the most incapable officers that ever commanded armies. And the terrible necessities of war are necessarily fatal to large numbers; but neither the retreat of Sir John Moore, nor the retreat to Burgos, did a tenth part of the mischief directly resulting from the bad sanitary organization of the British army, which like the late Director-General had its typhus at home—its remittents in the Netherlands—its yellow fevers in the West Indies—its dysenteries in the East Indies—its plague and ophthalmia in Egypt—a mixture of these diseases in Spain—its fevers and dysenteries everywhere in the field. The Crimea was the culminating point; for there 89 per cent. of the force was sick on an average during seven months; and the destruction of life was enormous. A British army in health, under the command of generals of genius, such as the country always produces in small numbers, is irresistible; and as the inefficiency of the army from sickness in its expeditions retarded its triumphs, it added millions to the National Debt. Nothing is so expensive as an unhealthy military force.

he was living in the best of worlds possible. He listened not with a frown, but, as his manner was, with a smile to the antiquated pleas for antiquated abuses. He positively refused to believe in the divinity of the Guards' tub of which a Swift alone might tell the tale—in the foul latrine—in the boiled beef for the soldier's stomach seven days in the week—in the close air of barracks—in the gangrene of hospitals—or in any of the idols which had been heretofore worshipped: all were remorsefully questioned, and as many as gave no satisfactory answer will ere long disappear; if they be not preserved in the United Service Museum as dread curiosities, which have, down to this date, destroyed more men in the British army than either the glittering steel, or the flashing artillery of its foes.

In his investigations Lord Herbert availed himself of the latest methods of analysis, and took counsel with scientific men; for he had no conceit, and no pretension to see by intuition what can only be acquired by the labours of a life. His opinions were therefore drawn from experience, and rested upon a scientific basis. In dealing with the soldier he had also another guide. Gentle culture, knowledge, intellect, genius, distinguish men from each other, but Lord Herbert knew that these distinctions did not separate mankind into classes of different natures, for he ever held that the rank and file of the English army were men of like passions with ourselves. He consequently seems always to have applied this test to the past practices, and to proposed plans for their moral as well as their physical improvement: "How should I feel under the same circumstances? or how would an officer regard such a measure as applied to him?" It was a simple appeal; and to this helm his generous heart ever answered faithfully.

I have thus given you a sketch of the results of some of Lord Herbert's labours.

The worth of many men is known only to their intimate friends, as in the memorable instance of him who is enshrined in the lays of Tennyson. And the value of the measures of some of our greatest statesmen can only be expressed in general terms; but, fortunately, the deeds of Lord Herbert, if they do not dazzle us by their splendour, can be exactly appreciated, and will be expressed in figures as long as the British army shall exist. The debt which the country owes him will accumulate from year to year.

As modest in death as in life, he lies quietly in his tomb at Wilton; and what memorial, either in bronze or in marble, it may be thought right by his friends or his country to dedicate to his memory I do not know; but that which occupied the solicitude of his last hours, and which, I dare affirm, would be dearest to his soul, would be the consummation of the good work, of which it was not given him to say, It is finished: and then his everlasting monument will be a living, healthy army.

APPENDIX.

Comparative View of SICKNESS and MORTALITY of the British Army in 1837-46 and in 1859.

Description.	1859.			Ratio per 1,000 to Strength.				Invalided under the Terms of Completed Service.		Constantly Sick in Hospital per 1,000.
	Strength.	Admissions.	Deaths, Including the Deaths of Invalids.	1859.		1837-46.		(Infantry, 21 yrs.) (Cavalry, 24 yrs.)		
				Admissions.	Deaths.	Admissions.	Deaths.	1859.	1837-46.	
1	2	3	4	5	6	7	8	9	10	11
United Kingdom—	Total.	Total.	Total.	p. 1,000.	p. 1,000.	p. 1,000.	p. 1,000.	p. 1,000.	p. 1,000.	p. 1,000.
Household Cavalry	1,213	653	10	538	8.24	—	11.09	7.42	14.73	28.70
Draagoon Guards and Dragoons	8,059	7,908	64	981	7.94	962	13.64	14.64	19.87	51.13
Royal Artillery	11,508	14,877	92	1,293	7.99	1,189	13.92	—	—	—
„ Engineers	1,243	1,579	9	1,270	7.24	—	—	—	—	—
Military Train	1,139	1,439	7	1,263	6.14	—	—	—	—	71.82
Foot Guards	5,939	4,701	54	791	9.09	862	20.43	19.87	17.17	51.76
Infantry regiments	19,621	18,915	149	964	7.59	1,044	17.89	10.41	—	50.91
Dépôt battalions	22,993	26,421	311	1,148	13.52	—	—	—	—	—
MILITIA	19,048	17,483	119	918	6.27	—	—	—	—	—
Mediterranean Stations—										
Gibraltar	5,153	4,889	40	949	7.76	939	13.58	10.48	—	46.90
Malta	5,310	6,446	101	1,214	19.02	1,120	19.36	8.29	—	51.81
Ionian Islands	3,660	3,225	46	881	12.57	1,139	17.94	4.64	—	44.46
North American Stations—										
Bermuda	1,074	577	15	537	13.95	1,187	33.79	4.65	12.3	35.11
Nova Scotia and New Brunswick	1,798	1,003	13	558	7.23	900	16.00	7.23	14.1	22.39
Canada	2,782	1,516	29	545	10.42	982	17.42	7.91	15.2	28.27
Newfoundland	209	278	1	1,330	4.8	781	11.54	43.01	48.3	37.10
British Columbia	150	85	1	814	6.67	—	—	—	—	—
Vest Indian Stations—										
Jamaica	624	833	9	1,335	14.42	—	61 to 30.77	4.8	—	58.08
West Indies—										
Barbadoes	786	826	5	1,051	6.36	—	58.57	4.9	—	49.38
St. Lucia	96	113	—	1,177	—	—	122.87			
Trinidad	190	276	17	1,453	89.53	—	106.37			
British Guiana	143	156	2	1,091	13.98	—	84.07			

* In comparing the mortality of 1859 with that of previous years, Dr. Balfour has, in some cases, made corrections for difference of age. (See "Report.")

† Average annual mortality in the twenty years, 1817 to 1836.

Comparative View of SICKNESS and MORTALITY of the British Army—Contd.

Description.	1859.			Ratio per 1,000 to Strength.				Invalided under the Terms of Completed Service. (Infantry, 21 yrs.) (Cavalry, 24 yrs.)		Consistently Sick in Hospital per 1,000.
	Strength.	Admissions.	Deaths, including the Deaths of Invalids.	1859.		1837-46.				
				Admissions.	Deaths.	Admissions.	Deaths.	1859.	1837-46.	1859.
1	2	3	4	5	6	7	8	9	10	11
	Total.	Total.	Total.	p. 1,000.	p. 1,000.	p. 1,000.	p. 1,000.	p. 1,000.	p. 1,000.	p. 1,000.
Southern Stations—										
St. Helena	465	373	6	802	12'90	943	16'62	—	—	36'23
Cape of Good Hope—										
Cape Town	664	1,286	21	1,937†	31'6†	945	16'54	—	—	—
Natal	562	513	7	913	12'41					
Eastern frontiers.....	3,096	2,858	35	923	11'30					
Australasian Stations—										
Australia	1,380	913	16	662	11'6	—	—	9'86	—	—
Tasmania.....	262	139	5	531	15'0	732‡	11'87‡			
New Zealand	334					518§	11'61§			
	1,125	716	5	636	4'5					
China	1,550	4,314	92	2,783	59'35	—	—	—	—	129'35
Mauritius.....	1,254	1,540	20	1,237	16'04	910||	22'38||	8'0	—	48'76
Ceylon.....	913	1,546	32	1,693	35'1	1,444	41'74	—	—	70'14

* In comparing the mortality of 1859 with that of previous years, Dr. Balfour has, in some cases, made corrections for difference of age. (See "Report.")

† The very high rate of mortality and of admissions into hospital in *Cape Town Station*, is accounted for by the fact that the 59th regiment which had broken down by disease in China, was sent to Cape Town on the 19th January, 1859, from which date till the end of the year it furnished 1,096 admissions and 18 deaths out of an average strength of 641 men.

‡ For the years 1839-55.

§ Ibid., 1846-55.

|| Ibid., 1838-54.

Mortality amongst the Native Troops in the British Army in the Year 1859.

Stations.	Strength.	Admissions.	Deaths.	Ratio per 1,000 to Strength.	
				Admissions.	Deaths.
Jamaica	807	1,034	25	per 1,000.	per 1,000.
Barbadoes	754	766	12	1,281	30'95
St. Lucia	103	95	1	1,016	15'9
Trinidad.....	102	78	6	922	9'7
British Guiana	301	337	2	765	58'8
Honduras	322	274	2	1,120	6'6
Bahamas	322	268	13	851	6'2
Sierra Leone.....	356	193	5	832	40'3
Gambia	314	205	8	542	14'02
Gold Coast	279	162	7	653	25'44
Ceylon	1,564	1,133	16	581	25'06
China	2,069	3,283	109	724	10'19
				1,634	53'7

On the COMPARATIVE PROGRESS of the POPULATION of ENGLAND and SCOTLAND, as shown by the LAST (1861) CENSUS. By JOHN STRANG, LL.D., City Chamberlain, of Glasgow.

[Read in Section (F), at Manchester, 10th September, 1861.]

IF some distant and untutored foreigner happened to cast his eye over the map of the world, and were told by some enlightened bystander that within the comparatively small islands of Great Britain and Ireland there resided the elements of a first-rate political power, he would no doubt feel some little surprise at the intelligence; particularly were he, at the same time, informed that within the boundaries of Great Britain itself there was only a surface area of about 57 millions of statute acres. But the foreigner's surprise would be perhaps still greater were he further told that, while the southern portion of the island, called England and Wales—with a surface of little more than 87 millions of acres—had a population (as ascertained by the late Census, exclusive of the army and navy, and merchant service abroad) of 20,061,725, the northern portion, called Scotland—with a territorial surface of upwards of 20 millions of acres—contained only 3,061,329 inhabitants. Such, however, are the real facts of the case; and those like ourselves, who are acquainted with the distinctive physical peculiarities of the two portions of Great Britain, will feel little wonder about it.

There is, however, a subject connected with this territorial division of England and Scotland, and their distinctive populations, which is not so easily understood—we mean the fact, as shown by the Census returns of the present century, that there has existed for some considerable time, and particularly of late years, a marked difference in the ratio of the progress of the population within the limits assigned to the southern and northern portions of Great Britain respectively.

The following table will best exhibit this difference, by showing the annual progress of the population in England and Scotland since 1801, when the enumeration figures of both countries may be first truly relied on:—

Year.	England and Wales.	Scotland.
1801	9,156,171	1,608,420
'11	10,454,529	1,805,864
'21	12,172,664	2,091,521
'31	14,051,986	2,364,386
1841	16,035,198	2,620,184
'51	17,927,609	2,888,742
'61	20,061,725	3,061,329

From the foregoing table it appears that the population of *England and Wales* has, in the course of sixty years, increased to the extent of 10,905,554, whereas that of *Scotland* has advanced to the extent of only 1,452,909; exhibiting an increase on the part of *England and Wales* of 119·1 per cent., and on that of *Scotland* of only 90·3 per cent.; and if we merely compare the progress of the populations of the two divisions of the island respectively during the last ten years, we find that while *England and Wales* show an increase of 12 per cent., *Scotland* only exhibits an advance of 5·9, or about 6 per cent.

The question then naturally arises, how can this great and important discrepancy between the rates of progress in *England* and *Scotland*, particularly as existing between the years 1851 and 1861, be explained? Has it been occasioned by a different birth and death-rate ruling in the respective portions of the island? or is it to be found in a larger proportional rate of emigration on the part of the North to that of the South? And if the latter be the case, what may be the probable causes which have led to that higher emigrating spirit?

Let us, then, attempt to discover what has been the actual *natural increase* of the population in *Scotland*, as deduced from the excess of births over deaths, since 1851. And here a difficulty meets us on the threshold—the fact that before the 1st January, 1855, there was no public register of births, deaths, and marriages kept in *Scotland*—and it is therefore only from the latter period that we can obtain any authentic figures wherewith to deal. Let us, however, see what these exact figures tell us, which will be best done in the following table:—

Annual Table of Births and Deaths in Scotland from 1st January, 1855, till 30th June, 1861.

Year.	Births.	Deaths.
1855	93,349	62,004
'56	101,821	58,529
'57	103,628	61,925
'58	104,195	63,532
'59	106,732	61,754
'60	105,704	68,055
'61 (Half year)	54,625	33,863
	670,054	409,662

From the foregoing table we at once discover that during the last six years and a-half the actual increase of the population from the excess of births over deaths amounted to 260,392; and, assuming that the average annual birth and death-rates then existing differed but little from those existing during the three and a-half years that preceded the passing of the Registration Act for *Scotland*—which

rates were, say, birth-rate 3·41 per cent., death-rate 2·08 per cent.,—then it would follow that during that period of three and a-half years preceding 1st January, 1855, the births must have amounted to 346,115, and the deaths to 211,120, showing an excess of births over deaths of 134,995, and which, when added to the excess of births over deaths during the last six and a-half years, makes a *total natural increase* of the population in *ten years*, within the boundaries of Scotland, of 395,887, or at the rate of about 13·6 per cent. It is therefore quite evident, that had Scotland not been subject to the effects of a *serious emigration*, her population at last Census would have amounted to 3,284,129, instead of 3,061,251.

If such, therefore, may be taken as a proximate picture of the real natural progress of the population of Scotland, it necessarily follows, considering the immigration from Ireland into the West of Scotland, that the tide of emigrating Scotch to other countries must have been very great, especially during the last ten years; seeing that in addition to all the Irish immigration—which, however, has not been so large for these four or five years by past—there must have gone out from Scotland no fewer than 222,878 persons, being the difference between the natural increase from the excess of births over deaths, and the increase as shown by the late Census.

According to the returns made to the Registrar-General by the Government Emigration Board, we find that during the last ten years, the estimated number of Scotch who have *emigrated* with the knowledge of the said Board has amounted to 188,627, leaving 89,251 which must have left otherwise, either to recruit the army and navy abroad, to push their fortune in various parts of the globe, unaccounted for by the Emigration Commissioners, or, what is more likely, have gone to swell the population of England. That the population of England has been greatly increased from immigration will at once appear evident, when it is stated that while in the ten past years the *English-born emigrants* have amounted to 640,210, the *natural increase* of her population only exhibits 136,460 more than her ascertained population by the Census, showing an unaccounted for deficiency of 503,740, for which she must have been mainly indebted to Scotland and Ireland. That an emigrating spirit has manifested itself on the part of the Scotch more than the English is certain, from the fact that, taking the mean population for the last ten years of each country, we shall find that, had Scotland only emigrated proportionally to England, the Scotch emigrants ought only to have amounted to about 100,000, whereas the numbers stated by the Commissioners are 188,627.

If the emigration from Scotland has thus been so disproportionately great, it may be asked from what particular quarter of the country has this spirit chiefly manifested itself, or, in other words, in

what division of the country has the population absolutely shown a decline? The following table will at once answer the question:—

Table showing the Counties in Scotland where the Population was found TO BE LESS in 1861 than 1851.

Counties.	Numerically less by	Counties.	Numerically less by
Sutherland.....	585	Argyll	8,303
Ross and Cromarty	1,427	Bute	420
Inverness	9,065	Dumfries	2,246
Kincairdine.....	137	Kirkcubright	691
Perth.....	5,149	Wigton	1,351
Kinross	949		
Clackmannan.....	1,502		<u>31,825</u>

It appears, then, from the foregoing table, that in twelve out of the thirty-three counties of Scotland there has been, since the Census of 1851, irrespective altogether of the natural progress of the population by excess of births over deaths, a *diminution* of the inhabitants to the extent of 31,825; and as these counties are almost entirely agricultural and pastoral, the fact would seem to indicate that either manual labour was less wanted in these particular districts, or that a better remuneration for labour and industry was offered elsewhere.

For a striking contrast to this state of things in the agricultural and pastoral parts of Scotland, we have only to look to the Census figures of the commercial, mining, and manufacturing county of Lanark, where we find, in the course of the last ten years, an *increase* to the population of no less than 101,390! The fact is, the increase of the population is almost entirely limited in Scotland to *towns*, and to these of the largest kind—the increase in towns being 10·9 per cent., whereas the rural districts only show an advance of 0·9, or not 1 per cent.; or, if Scotland be divided into three great divisions—viz., called *Insular*, *Mainland-Rural*, and *Towns*—the insular will show a decrease of 3·6 per cent., the mainland-rural an increase of 3·9 per cent., and the towns an increase of 12·9. But, to show still more forcibly the decline that has taken place among those residing in the *rural* portions of Scotland, it may be mentioned that the small increase stated as occurring in the mainland-rural district of 3·9 per cent., is owing almost entirely to the increased population of the smaller towns situated within the limits of that great division of the country. The leading deduction, then, to be drawn from these dry statistical details is simply this, that there has existed for some time a manifest tendency on the part of the inhabitants of the country districts, and particularly of those dwelling amid the Highlands and Islands, to quit a land where rural labour was little wanted, and pastoral care was poorly paid, for other countries where both were in good demand and highly compensated; or for towns and cities, where the hardy and unskilled labourer is almost always

sure to find employment. That this emigrating spirit in search of future prosperity has proved as yet as advantageous to Scotland as it has certainly been to Ireland, will scarcely be denied, seeing that it increases not only the value of the labour, and raises the condition of those who remain behind, but elevates the position and increases the comforts of those who go away. And although there must ever be felt a pang on the part of a pilgrim family when abandoning for ever the cherished scenes of childhood, even when those are associated with nothing better than the comfortless home of the Highland cottar, still the mutual personal benefit that results from this separation has been generally found to be, to those gone and to those left, well worthy of the temporary pang.

Among the immediate causes which have led to the late depopulation of the Highlands and Islands, and the partial diminution of the inhabitants of the other rural districts of Scotland, we shall only allude first, to the great enlargement which has lately taken place in the sheep-walks and agricultural farms—particularly in the northern parts of the country—thereby diminishing a host of small master graziers, and even smaller agricultural tenants, each and all of them without energy and without capital; secondly, to the discouragement given to the continuance of unnecessary cottars and crofters idly occupying the country; and, thirdly to the effects and results of the late Highland famines, which have, alas, too sadly taught the poor and perishing denizens of a country that cannot maintain them, to flee for refuge to one more kind and hospitable.

If, however, from the returns of the present Census we have been told that the rural portions of Scotland have, with respect to population, remained either stationary or have shown a tendency to decline it is, at the same time, certain that in the great centre of trade, mining and manufactures—we mean in *Glasgow*—there has been a most marvellous increase in the amount of its inhabitants. For while at the commencement of the present century that city and its suburbs only contained 83,769 persons, the last Census revealed the fact that its population, with that of its new-world increasing suburbs, amounted to 446,895, and which, when compared with the population residing on the same territory in 1851, showed an increase of no less than 86,257 during the last ten years, or a rate of 28·95, or nearly 24 per cent. That this increase has mainly arisen from a *constant immigration* from all parts of Scotland, and also from Ireland, is no doubt certain; for if we assume that the last year's birth and death-rates—which were, births, 3·87 per cent.; deaths, 3 per cent.—have been the average rates for the last ten years, which we believe is not far from the truth, and that the mean population during the same period may be fairly assumed to have been 403,000, it will then follow that the natural increase, arising from the excess of births

over deaths, could not have amounted to more than above 35,000, which, being deducted from the ascertained increase as shown by the late Census, proves that the increase of the city and suburbs must have been supplemented by an immigration of upwards of 50,000.

That Glasgow, indeed, has been chiefly indebted during the last half century to the immigration which an increase of capital and an active and multifarious industry have induced, cannot better be illustrated than from the facts which our lately-printed analysis of the Enumeration Returns of the Glasgow Census then exhibited. From these the fact may be gathered that, independent of the many thousand individuals that have been attracted to that centre of Scottish industry from all quarters of Scotland, there were found within the limits of its municipality alone, on the 9th of April last, no less than 10,809 native English, 63,547 native Irish, 827 foreigners, and 1,440 colonists, being about 20 per cent. of the whole of that population.

In conclusion, let us merely add, although it is quite true that the population of Scotland has only increased, according to the late Census, about 6 per cent., and consequently only in a ratio of half the amount of that of England, it is, at the same time, certain that this diminution of ratio has not arisen from any falling off in the natural increase of the people, that is to say, in a diminution of the excess of births over deaths, but wholly and entirely from a most extraordinary amount of emigration by persons belonging chiefly to the insular and rural portions of the kingdom—an emigration which, in the peculiar districts affected by it, has been thereby benefited, and has not in the least degree interfered, but rather accelerated the progress of those leading marts of commerce and industry in Scotland, which have hitherto so successfully kept pace with their worthy commercial and manufacturing competitors in England. In a word, while Scotland, from its improved, and still improving, system of agricultural and cattle rearing, may feel well content to part with her supernumerary and unemployed peasantry, either to add to the prosperity of her urban seats of industry, or to continue to fulfil the old adage that in every nook of the world where any good is to be got, there is to be found a Scot, a rat, and a Newcastle grindstone—she at the same time cannot but feel assured so long as her soil is daily becoming more productive, and her manufactures, mining, and commerce are advancing, and her cities, harbours, and railroads are extending as they are at present found to be, that she is still on the pathway of prosperity, even although the Census has truly proclaimed that the progress of her population has only exhibited an increase of scarcely 6 per cent. during the last ten years of her history.

An ACCOUNT of the PRICES of PRINTING CLOTH and UPLAND COTTON, from 1812 to 1860, &c. By ALDERMAN NEILD (Manchester).

[Read before Section (F), at Manchester, 4th September, 1861.]

IN the two Tables annexed to this Paper, I have given the price of a description of Cotton Cloth which is known in the trade by the expression " $\frac{7}{8}$ -72 Reed Printers." By this term is meant a piece of grey cloth, measuring 29 yards long and 27 inches wide. Formerly the width was 28 inches; the value of this additional inch being about threepence; but for the last eighteen years, the width has been the same as at present. Of course there are various widths, reeds, and qualities, but I refer now to what is understood when speaking of the best makes. By the term 72 reed, is meant 72 threads of warp in the inch, and the best class of this description of cloth has 88 threads of weft in the same space.

This description of Cloth is now, to a considerable extent, superseded by what is termed a 9-8 cloth, which, assuming it to be of the same quality, will measure in the grey 25 yards long and 86 inches wide. It may be said that 86 inches is not 9-8; in this respect, however, both as to length and width, I believe it has undergone no change for between forty and fifty years.

Notwithstanding the $\frac{7}{8}$ are very much giving place to 9-8 I have continued the comparison in $\frac{7}{8}$ throughout, as it is only by so doing I can give an accurate comparison of one period with another: 9-8 at the early time of the comparison being very little used.

The first six years of the table (*viz.*), from 1812 to 1818, refer to an 80 reed cloth, which means cloth with 80 threads in the inch of warp; being in other respects much the same as the 72 reed. The present difference in value between an 80 and a 72 reed, will be about 9*d.* per piece. For the latter half of the period included in the table, the prices of *cloth* given for each year represent the average of monthly transactions—that is, of transactions which proceeded upon a monthly quotation and agreement of prices between buyer and seller. The prices given of *Raw Cotton* are not average annual prices, but the highest and lowest quotations occurring in each year.

I may here mention a remarkable circumstance, showing the astonishing superiority of power loom cloth over hand loom. It is this;—in our practice as buyers of cloth, we apply a very close scrutiny to every lot of cloth we purchase, as to the warp, weft, length, breadth, and weight. The accuracy with which one piece

compares with another in all these particulars, in the productions of first-class makers, is surprising; the item of weight, however, being the one in which the greatest difference is to be apprehended. But even in this, the difference in the first makes in large quantities of cloth, will not be more than about five ounces in cloth weighing, for example, 5lbs. 2oz.; that is, taking a number of pieces, and weighing each piece singly;—but taking the average of a number of lots of 20 pieces each, thus extending over thousands of pieces, they will not vary more than from 1 to 2 oz.; whilst taking the case of the 80 reed cloth named in the first six years of this table, I find a variation in cloth purporting to be the same, of from 5lbs. 1oz. to 6lbs. 4oz. This, as already stated, was hand made cloth, but the production of a house which I believe ranked first in the trade as regards this description of cloth. The very great irregularity, however, in the weaving constituted the most marked difference in the value in the two kinds of production.

The two most remarkable years in this table, are 1814 and 1825. The first (1814,) was soon after the battle of Leipsic, when the Continent had been closed to our manufactures for probably twenty years, and when it was believed, (to quote a saying of the time) “there would not be a piece for every village.” With extravagant notions like these there is no wonder that the excitement became intense, and 80 reed grey printing cloth rose from 25s. per piece to 49s., and one style of prints which are produced by our concern, known in the Trade by the term “single coloured plates,” rose from 44s. 4d. to 68s., or from 19d. per yard to 2s. 3d., a striking instance of the change which has taken place in the value of this article, from the period named to the present time. I may remark, that we are now selling a much superior article of the same class for 11s. or about 4½d. per yard:—by superior I mean so much better, both in design and execution, and brilliancy of colour, that if the production of 1814 were placed side by side with the production of 1860 at two-thirds the price, the piece of 1860 would be taken, and the one of 1814 left.

It must be borne in mind that there was an item in the cost of the piece of 1814, from which we are now happily free, I mean an Excise duty of 5s. 10½d. per piece, which upon the present value of the Print, is about 53 per cent. This tax was repealed in 1831.

The other year named, I mean 1825, will be remembered by many as one of extraordinary speculation and excitement, principally if I remember rightly, in raw cotton. The manufacturer endeavoured to keep pace by advancing his cloth and ¾-72 reed printing cloth rose, in that year, from about 18s. 6d. to 19s. This, however, had the effect of almost putting a stop to the demand; and I do not remember an instance in which the retail Trade more steadily kept aloof from purchasing. Quite different, as far as I can remember,

was the case in 1814, on which occasion (for a time at least,) it was thought that circumstances justified the excitement.

During the excitement of 1825, I was very much amused by a Liverpool gentleman, who entered warmly into the cotton speculation, and regularly visited me every week, to inquire if the drapers were giving way by making their usual purchases; he was always met by the same answer (*viz.*), "No, nor are they likely to do,—you have little idea of the stocks these persons have to fall back upon, and which the present high prices enable them to dispose of, but which in regular times would be passed over for newer goods."

During this time of great speculation, sales, except to a very limited extent, were out of the question. The result was, a great accumulation of stocks. The usury laws were then in force, and in consequence of the very high rate of money, manufacturers were driven to most terrible sacrifices upon their stocks, and I seldom or never remember so much suffering amongst them.

At length, prices began to give way; and the cloth in question very soon fell from 19*s.* to 18*s.* 6*d.* at about which price it had steadily ranged for about two years previous to the speculation; consequently, many then thought the price a safe one, but in a very short time it fell to 10*s.*, or nearly 50 per cent., from the highest point. This fall occurred in a period of about nine months. In 1848, this same cloth touched the very low point of 4*s.* 6*d.*; its present value being 6*s.* 10*d.*

It will be observed, by a reference to the table, that in 1816 the price of 80 reed cloth was 29*s.* This period was one of depression rather than excitement; whilst as a remarkable instance of the change in the price of an article, differing only slightly in value, it fell in 1848 to 4*s.* 6*d.*

Then, again, as another instance of the change in value, and looking at the column of *Average Prices* :—

Periods.	Cotton.	
	Highest.	Lowest.
In 1818 it was <i>s.</i> <i>d.</i> 21 9	<i>s.</i> <i>d.</i> 1 10½	<i>s.</i> <i>d.</i> 1 4½
„ '26 „ 10 6	— 8½	— 5½
„ '37 „ 7 9	— 10½	— 6
„ '46 „ 5 6	— 6½	— 4½
„ '48 „ 4 9½	— 5	— 3½

After this, prices began to advance, until in 1860 they touched 7*s.*

The causes which have operated to produce these changes, as

shown in the table, are too numerous to be fully entered upon here. They, may, however, be named under such general heads as the following, viz.: reduction in the price of the raw material—improved machinery—improved training of the hands employed—and the enormous increase of demand, which has enabled the manufacturer to diminish the cost per piece on his fixed expenses, by turning off a greater number of pieces from the same machinery. Lowness of price, again, has been continually stimulating the demand.

I have thus endeavoured to show the history of the fluctuations in the price of one article for a period of about half a century, forty-three years of which has been merely the record of my own purchases in connection with my own firm of Thomas Hoyle and Sons, Calico Printers, Mayfield Works.

[*Note by Editor, S. J.*—By means of the figures given by Alderman Neild in the two following Tables (B) and (C), we are enabled to arrive at something like an accurate numerical expression of the *fall* which has taken place in the *manufactured fabric* (cotton cloth) as compared with the *fall* which has taken place in the price of *Raw Cotton*. In the following Table (A), an abstract is given of the two Tables (B) and (C); and under cols. 4 and 7 is shown the *percentage* of fall in price of the two commodities. It would seem that down to 1880 the *fall* in *Cloth* hardly kept pace with the fall in *Cotton*; but after 1880 the effect of improvements in manufacturing processes, is made manifest in the rapid *fall* of *Cloth* from Ratio 85 to Ratios 49 and 56, notwithstanding a steady or even rising price of *Cotton*. The tables now contributed by Alderman Neild are exceedingly valuable, inasmuch as they represent large actual transactions by the same parties and for the same purposes, carried on for fifty years. It is very rarely that any statistical Table of Prices so authentic and conclusive is brought before the public.]

(A.)—Abstract of Results of the Tables (B) and (C).

1	2			3	4	5			6	7
Periods.	Cotton Cloth, per Piece.				Upland Cotton (Lowest).					
	Average Prices.		Ratio.	Rise or Fall.	Price, per lb.	Ratio.	Rise or Fall.			
	s.	d.		Pr. cut.	s.	d.	Pr. cut.			
1812-14....	29	8	265°	—	1	7	253°	—		
'15-17....	26	10	240°	- 9°4	1	4½	220°	-13°		
'18-25....	16	6	148°	-38°4	- 8½	111°	-49°6			
'26-30....	9	6½	85°	-42°6	- 4½	64°	-42°4			
'31-37....	9	1	82°	- 4°	- 7	93°	+66°			
'38-47....	6	8½	60°	-24°9	- 5½	68°	-26°9			
'48-57....	5	5½	49°	-28°4	- 5½	68°	—			
'58-60....	6	4½	56°	+14°3	- 6½	81°	+19°1			
	11	2½	100°	—	- 7½	100°	—			

(B.)—An Account of the Average Annual Price of $\frac{1}{8}$ -72 REED PRINTING CLOTH, from 1812 to 1860, both inclusive; also an Account of Highest and Lowest Price of UPLAND or BOWED GEORGIA COTTON, for the same period.

1	2	3	4	5	6	7	8	9	10	11
Year.	Price per Piece.						Cotton, per Pound.			
	Highest.		Lowest.		Average.		Highest.		Lowest.	
	s. d.	Ratio.	s. d.	Ratio.	s. d.	Ratio.	s. d.	Ratio.	s. d.	Ratio.
1812.....	—	—	—	—	25 —	224°	2 11½	209°	1 1	173°
'13.....	—	—	—	—	25 —	224°	2 6	267°	1 9	280°
'14.....	49 —	467°	—	—	39 —	350°	3 1	330°	1 11	306°
	49 —	467°	—	—	29 8	265°	2 6	267°	1 7	253°
1815.....	—	—	—	—	28 —	250°	2 1½	204°	1 6	240°
'16.....	—	—	—	—	29 —	260°	1 9	187°	1 3	200°
'17.....	—	—	—	—	23 6	210°	1 11½	207°	1 4½	216°
	—	—	—	—	26 10	240°	1 11½	207°	1 4½	220°
1818.....	22 6	214°	21 —	247°	21 9	194°	1 10	195°	1 4½	220°
'19.....	21 6	205°	18 —	211°	19 9	177°	1 7½	175°	— 10	133°
'20.....	16 —	152°	15 6	182°	15 9	141°	1 1½	122°	— 8	106°6
'21.....	15 6	148°	15 —	176°	15 3	136°5	— 11½	102°	— 7	93°
'22.....	15 —	143°	14 —	165°	14 6	130°	— 11	98°	— 5½	76°6
'23.....	14 6	139°	13 9	161°	14 —	125°	— 10½	96°	— 6½	83°
'24.....	15 6	148°	13 6	159°	14 6	130°	— 10½	94°	— 7	93°
'25.....	19 —	181°	13 6	159°	—	—	1 7½	177°	— 6	80°
	17 7	167°	15 6½	182°	16 6	148°	1 2½	126°	— 8½	111°
1826.....	11 —	104°5	9 9	114°	10 6	94°	— 8½	78°	— 5½	70°
'27.....	10 3	97°5	9 9	114°	10 —	89°	— 7½	69°	— 4½	55°
'28.....	10 —	95°	9 6	111°	9 9	87°5	— 7½	67°	— 5	66°6
'29.....	9 1½	87°	8 3	97°	8 9	79°	— 7	65°	— 4½	61°6
'30.....	9 3	88°	8 1½	95°5	8 8½	78°6	— 7½	70°	— 5½	75°
	11 9	94°	9 6½	111°7	9 6½	85°	— 7½	69°	— 4½	64°
1831.....	9 6	90°5	8 4½	98°3	8 11	80°	— 7½	64°5	— 4½	63°
'32.....	9 1½	87°	8 —	94°	8 7	77°	— 8	71°	— 5	66°6
'33.....	9 7½	91°5	8 3	97°	8 11	80°	1 —	111°	— 6½	86°6
'34.....	10 1½	96°3	8 6	99°8	9 4	84°	— 10½	93°4	— 6½	113°
'35.....	11 —	104°5	9 3	109°	10 2	91°	1 1½	118°	— 9½	123°
'36.....	10 6	99°8	9 6	111°	10 —	89°	— 11½	104°	— 9½	130°
'37.....	10 2	97°	7 3	85°	7 9	70°	— 10½	94°5	— 6	80°
	10 —	95°	8 5½	99°	9 1	82°	— 10½	93°4	— 7	93°

(B.)—An Account of the Annual Average Price of $\frac{1}{2}$ -72 REED PRINTING CLOTH—Contd.

1	234567						891011								
Year.	Price per Piece.						Cotton, per Pound.								
	Highest.			Lowest.			Average.			Highest.			Lowest.		
	s.	d.	Ratio.	s.	d.	Ratio.	s.	d.	Ratio.	s.	d.	Ratio.	s.	d.	Ratio.
1838.....	8	11½	85°	7	10½	92°	8	5	75°5	—	8½	73°	—	6½	83°
'39.....	9	9	92°6	7	6	88°7	8	7½	77°	—	9½	82°	—	6½	91°
'40.....	8	7	81°	7	10	92°	7	3	64°	—	6½	60°	—	5½	76°
'41.....	8	2	77°	6	7	77°	7	3	64°	—	7½	63°	—	5½	78°
'42.....	6	6	61°7	5	7½	66°	6	—½	54°	—	6	53°	—	5½	68°
'43.....	6	9½	64°	5	6	64°	6	2½	55°	—	5½	42°	—	4½	55°
'44.....	7	5½	71°	6	8	78°	6	3	56°	—	6	53°	—	4½	58°
'45.....	6	3	59°	5	6	64°	5	11½	53°	—	4½	42°	—	4½	56°6
'46.....	5	9	54°	5	4½	63°	5	6	49°	—	6½	58°	—	4½	56°6
'47.....	6	6	61°7	5	3	61°7	5	8½	51°	—	7½	69°	—	4½	56°6
	7	5½	71°	6	4½	75°	6	8½	60°	—	6½	60°	—	5½	68°
1848.....	5	2	49°	4	6	53°	4	9½	42°7	—	5	44°	—	3½	50°
'49.....	6	—	57°	5	—	59°	5	4½	48°	—	6½	61°	—	4½	56°6
'50.....	6	4½	60°	5	9	67°5	6	—½	54°	—	8½	72°	—	6½	88°
'51.....	6	—	57°	5	3	61°7	5	6	49°	—	7½	69°	—	4½	65°
'52.....	6	—	57°	5	6	64°	5	8	50°	—	6½	56°6	—	5	66°6
'53.....	6	3	59°	5	9	67°	5	11	53°	—	6½	59°	—	5½	76°
'54.....	5	10½	56°	5	1½	60°	5	4	47°5	—	6½	55°	—	5½	68°
'55.....	5	6	51°6	5	—	59°	5	3	47°	—	7½	63°	—	5	66°6
'56.....	5	10	55°	5	4½	63°	5	7	50°	—	7½	66°6	—	5½	75°
'57.....	6	6	61°7	5	9	67°	6	2	55°	—	9½	82°	—	6½	81°6
	5	11½	57°	5	3½	62°	5	5½	49°	—	7	62°	—	5½	68°
1858.....	6	—	57°	5	4½	66°	5	9	51°	—	7½	66°6	—	6½	81°6
'59.....	6	10½	66°	6	1½	72°	6	5	57°	—	7½	64°6	—	6½	88°
'60.....	7	1½	68°7	6	10½	80°6	7	—	62°	—	7	62°	—	5½	76°6
	6	8	64°	6	1½	71°5	6	4½	56°	—	7½	64°6	—	6½	81°
Gen. ave.	10	6½	100°	8	6½	100°	11	2½	100°	—	11½	100°	—	7½	100°

Note.—In this Table the cols. 3, 5, 7, 9, and 11 give the *Ratio* of variation of each Yearly Price as compared with the number 100, which is assumed to represent the *average* of each col. of Prices. Thus the *general average* of col. 2—i. e., the Highest Prices of Years 1818–1860 is 10s. 6½d.,—and representing that result by 100, it follows that the price of 22s. 6d. in 1816 must be represented by the Ratio of 214. The Price in 1818 was, therefore, 114 *per cent.* higher than the average price (10s. 6½d.) of the whole period.

(C.)—Price of AMERICAN or UPLAND COTTON, from 1793 (when the First Importation of American Cotton commenced) to 1811, both inclusive.

Year.	Highest.		Lowest.	
	s. d.	Ratio.	s. d.	Ratio.
1793	1 10	76°	1 1	93°
'94	1 6	62°	1 —	86°
'95	2 3	93°	1 3	107°
'96	2 5	100°	1 —	86°
'97	3 1	127°	1 —	86°
'98	3 9	155°	1 10	157°
'99	5 0	207°	1 5	121°5
1800	3 0	124°	1 4	114°
	2 10½	118°	1 3	107°
1801	3 2	131°	1 5	121°5
'02	3 2	131°	1 —	86°
	3 2	131°	1 2½	103°5
1803	1 3	52°	— 8	57°
'04	1 6	62°	— 10	71°5
'05	1 7	65°5	1 2	100°
'06	1 9½	74°	1 3	107°
'07	1 7	65°5	1 3½	110°
'08	3 0	124°	1 3½	110°
'09	2 10	117°7	1 2	100°
'10	1 10½	77°6	1 2½	103°5
'11	1 4	55°	1 —½	87°5
	1 10½	78°5	1 1½	102°
Gen. ave.	2 5	100°	1 2	100°

*On STRIKES and their EFFECTS on WAGES, PROFITS, and
ACCUMULATIONS.*

By JOHN WATTS, PH.D., Manchester.

[Read before Section (F), at Manchester, September, 1861.]

AMONG the most serious of the evils to be encountered in the operations of trade are strikes by organized bodies of workmen. Since the repeal of the laws against combinations of workmen, "trades' societies" have sprung up in almost every considerable branch of employment—associations, the principal object of which is the "protection of wages." These societies are co-extensive with the trades which they represent, being composed of federated branches, united by representation in central committees. Some of these societies are not strictly confined to the United Kingdom, for the hand engravers have members in North America, and the Amalgamated Engineers have members in every part of the civilized world. In some of these societies *piecework alone*—i. e., work at so much per yard, or per piece of a given number of yards, or so much for a given job—is recognized as the proper mode of payment; in others piecework and daywork are both allowed; and in others, again, daywork alone is recognized; but in all there are rules, expressed or understood, to control the rates of wages, which are alike for the inferior and the superior workman. In most societies apprenticeship to the trade is held to be an indispensable preliminary to admission, and the number of apprentices to be allowed to any employer to a given number of men is defined; while in other societies (the cotton trade, to wit) the system of apprenticeship is held to be injurious, and is sometimes denounced as a tyranny. The societies enforce their rules upon members by fines and expulsion, while the rod held over the employer is the probability of a strike.

That strikes are great evils is universally allowed. Some persons affirm that they are unmitigated evils; some think that, however mischievous, they are not preventible; while others affirm that they are necessary, as preventing even greater calamities. If I can at all aid in discovering which of these theories is the true one, or if any of them be true, my purpose will be answered. I suspect there are but few men who would think of re-enacting the laws against combinations, for whatever be the evils of freedom, those of secret societies, endless prosecutions, and schemes of revenge, which would certainly follow any such enactment, would be much worse; and we

are, therefore, left to reason alone as our court of appeal, whatever may be our conclusions; and if we find that we are at present experiencing the danger of "a little learning" in trade affairs by workmen, the cure, as I believe, is not to be found in the backward path, but in the progress to higher knowledge; and we must not forget that our present position, as compared with twenty years ago, shows a very satisfactory improvement in the conduct of the working class generally.

Economic science rules that the price of labour, like that of any other commodity, will be regulated by the supply of compared with the demand for it; and working men practically acknowledge the truth of the theory even while fighting against it, for by strikes they withdraw labour from the market, thus making it artificially scarce, in order to keep up its price. But such an operation, even if successful, is shortsighted; the operatives forget that all increase to the future wages fund comes out of the profits of the employer and the invested savings of the workman; and that to arbitrarily prevent the production of wealth, or to wastefully consume the savings of past years, is just as injurious to society, and as certainly lessens the future demand for workmen and the future rate of wages, as if the employer's workshops and plant had been burnt, or his wealth cast into the sea. Like produces its like, wealth begets wealth, but the seed wealth can only fructify by passing through the soil of labour; and as the increase of an industrious population increases the price of land by increasing the customers for its produce, so will the increase of wealth generally increase the price of labour by increasing the demand for labourers. If I save money I do not lock it up in a box, but invest it, in order to make a profit; but where shall I find an investment which does not employ labour! If I go into the most unlikely looking, as into consols, into bank or railway shares, I release another man's money; and, however often this transaction be repeated, the ultimate result will be the release of some one's money for productive employment.

The connection between the employer and his workpeople ought to be very intimate; for unless the workman has the confidence of his employer or manager, he cannot expect to retain his situation for any long time, and to enable him to deserve such confidence he must work with a will, which can only arise from satisfaction with his remuneration and his treatment. The best of friends occasionally disagree, and each conscientiously believes the other to be in the wrong, and it is hardly likely that members of societies which, as at present constituted, infringe upon individual liberty will avoid disputes with the sufferers from their restrictive rules; and, accordingly, we can scarcely lift a newspaper without finding (by advertisements for workmen, and counter advertisements advising workmen

not to engage) that disputes and strikes are of very frequent, not to say of constant occurrence. The main object of trade societies is to keep up wages, and I am not prepared to assert that they do not in some cases succeed, especially where by limiting the number of apprentices they keep any given trade in few hands; but I wish to inquire if strikes be a necessary condition to that success; or if, on the contrary, any possible success achieved by such process could not equally be arrived at by less objectionable means; and if it be not possible to arrange trade disputes without resort to this fearful sword of strife.

The main causes of strikes have been threefold—the desire to limit a trade, the introduction of new machinery, and dissatisfaction with the rate of wages paid, or proposed to be paid. Sometimes the strike is against the use of the new machine, and sometimes against the arrangements rendered necessary by its introduction. A Liverpool shipbuilder in 1859 got the copper for a ship's bottom punched by machinery, ready for nailing on, but his workmen struck, and obliged him to set the hand punchers to work to go over the job again as if it was not already done, and to pay them for the sham. The shoemakers of Northampton struck against the employment of the sewing machine, and so strong was the sympathy of "trade societies," that subscriptions were sent in, in aid of the strike, from the users of the machine in Kettering, and the very machine shop in London, which supplied the obnoxious articles. It seems to be very difficult for working men to get rid of the idea that improved machinery will lessen the demand for labour, although both theory and practice prove the contrary. It is quite certain that for a new machine to get adopted, it must make a profit to its owner over and above that of the machine which it supersedes, and that increase of profit increases the future wages fund, and, consequently, the demand for labourers. And it is equally certain that the increased demand for labour, the increase of population and of material wealth, have been most rapid where machinery has achieved the greatest perfection, viz., in the cotton trade of Lancashire.

It is quite true that the whole increased demand for labour arising from a new machine may not be confined to the trade in question, and that for a time some hands may be displaced; but ought the temporary displacement of a comparatively few persons to hinder the progress which, by increased production of wealth and lowering of prices, benefits the whole world beside? And is it possible by any strike to stay the progress of invention? I hope and believe it is not.

But most of the strikes which have come under my observation have resulted from dissatisfaction with the amount of wages paid. This dissatisfaction (so far as the cotton trade is concerned) is sometimes general and sometimes local. It is general when the

state of trade requires a reduction of wages, or when workmen think the state of trade justifies a rise; it is local when the hands at one place think themselves worse paid than the same class of hands in other places. The workmen seem to desire to have a regular standard list of wages throughout each department of the trade, regardless of the advantages or disadvantages of particular localities, the qualities of the machinery used, or of the material to be wrought up. If trade always left a large margin of profit these differences might not be important, but when a manufacturer has to keep up a large establishment upon a single penny per lb. between the price paid for yarn and the price obtained for cloth; then a shilling per ton extra for coals, or the existence of an extra tollbar, and a few extra miles of carriage to the market, make the difference between profit and loss, and this difference can only be remedied by means of wages. The manufacturer also feels that if he lays out capital on improved machinery, or supplies extra good material, and thus enables his workpeople to produce more in a given time, he ought to get a trading profit upon such extra outlay, just as he would if he invested in extra *matériel*, or wages on old machinery.

The price of labour is a bargain between the employer and the workman, and it is not unnatural that each should put a different estimate upon the proposed arrangement. Any dissatisfaction on the side of the workmen is submitted to the central committee of their society, which advises whether to accept the terms of the employer, or to organise a strike, in order to force the employer to give the price demanded by the society. The difference in dispute is sometimes not more than $2\frac{1}{2}$, frequently not more than 5, and seldom exceeds 10 per cent. of the wages paid. The duration of a strike varies very much. The great Preston strike lasted thirty-eight weeks, the one at Padiham twenty-nine weeks, Bolton six weeks, Ashton and district six weeks, Clitheroe six weeks, Blackburn three weeks. The strike of the London builders lasted twenty-six weeks, and the late Colne strike fifty weeks. Let us assume 5 per cent. as the average amount in dispute, and assume that the strike is in every case successful, and we shall then find that the adage which is applied to disputants at law, that "he who wins loses," is equally applicable here. A week is nearly 2 per cent. of a working year, and of course represents nearly 2 per cent. of the wages of a year. If, therefore, a strike for 5 per cent. *succeeds*, its results will be roughly exhibited in the following table:—

				Years of Work at the Extra Rate.
The loss of 1 lunar month's wages will require to make it up ...				$1\frac{1}{2}$
" 2	"	"	"	$3\frac{1}{2}$
" 3	"	"	"	$4\frac{1}{2}$
" 6	"	"	"	$9\frac{1}{2}$
" 12	"	"	"	$19\frac{1}{2}$
" $12\frac{1}{2}$	"	"	"	20
				2 L 2

But, as money is worth 5 per cent. at interest, it follows that if a strike for 5 per cent. lasts $12\frac{1}{2}$ months, and then succeeds, and maintains the increase for twenty years, the workman has lost in interest much more than he has gained in wages, and that, therefore, no part of the loss can ever be made up; for if he could have worked for the lower sum during the year of strike, and have invested instead of spending the money, the year's wages would have grown into three years' wages nearly by the time in which the gain of the strike would make up for the loss of a single year. Of course, a strike for 10 per cent. would require only half the above term to make up the loss, while a strike for $2\frac{1}{2}$ per cent. would require double the time exhibited in the table, or forty-one years.

The strike of the London builders in 1859 was for 10 per cent. of time, or its equivalent 10 per cent. of wages, and, as it lasted twenty-six weeks, would, if successful, have required $10\frac{1}{2}$ years of continuous work at the extra rate to make up the loss of wages sacrificed. The amount in dispute between the weavers of Colne and their employers did not average more than $8\frac{1}{2}$ per cent. and, had the strike been successful, would have required more than twenty-eight years' continuous employment at the advance to make up the amount of wages lost, by which time the lost wages would, at 5 per cent., have quadrupled. In the cotton trade, wages appear to undergo something like a general adjustment every three or four years, in consequence principally of defective or abundant harvests of corn or cotton, or both. Such adjustments occurred in 1853, in 1857, and in 1860. If, therefore, the strikes which occur were spread equally over these periods, they would, even when successful, only affect the rate of wages for about two years upon an average, and therefore could not make up for more than about five weeks' loss of wages by strike. But strikes are seldom successful to the workmen, so that while they sacrifice the wages of the present time, they also lessen the wealth of the world, and so lessen the future demand for labour, and put further off the day when any advance of wages will be possible.

Here is a list of a few unsuccessful strikes, with a rough estimate of the losses consequent thereon. Some of these were among spinners, and some among weavers; and, learning that about 45% in weaving and 80% in spinning will represent the capital per hand engaged, I have assumed, for the purpose of my calculations, 65% as the general average, and fifty weeks as the average working time in a year:—

Example of Unsuccessful Strikes, with Estimates of Loss to Society.

Name of Town.	Number of Hands.	Weeks of Strike.	Wages per Week	Amount of Loss.	Profit at 12½ per Cent. on Capital.	Subscriptions at One-fourth Wages.	Total Loss.
			s.	£	£	£	£
Preston	15,000	38	15	427,500	92,625	106,875	627,000
Padiham	800	29	—	17,400	3,770	4,350	24,520
Clitheroe	3,000	6	—	13,500	2,925	3,375	19,800
Blackburn and district.....	40,000	3	—	90,000	19,500	22,500	132,000
Ashton and district.....	22,000	6	—	99,000	21,450	24,750	145,200
Colne	1,500	50	—	56,250	12,187	14,062	82,499
Bolton	12,000	6	—	54,000	11,700	13,500	79,200
London builders	10,000	26	25	757,650	164,157	189,412	1,110,219
				325,000	53,125	81,250	459,375
				1,082,650	217,282	270,662	1,570,594

The associated colliers have, upon their own showing, spent about a quarter of a million on strikes since 1842; and the amalgamated engineers threw away nearly half a million in 1852. According to our assumption of capital of 65*l.* per individual, the amount thus lost by the cotton trade alone, would have given employment and wages to 17,184 persons, and if every second person was the head of a family they would represent 42,950 individuals whose bread is thus wasted in perpetuity. And all the above-named, except the Preston strike, have occurred within the last two or two and a-half years, and all have ended unsuccessfully; so that there has been no compensation whatever.

I am aware that I may be thought wrong to try to treat these great problems so exclusively by a money estimate; but let me explain that money is simply a convenient expression for the necessities and comforts of life, which represent life itself, with all its feelings, all its hopes, and all its aspirations. If I could see that these great sacrifices were necessary in order to secure a proper position for the working man they would excite my highest admiration; but I cannot see the desirability of restricting any man, or any number of men, from placing their sons in the best paid trades if they can find employers who are willing to take them, nor do I see the desirability of a society of workmen dictating what amount of wages an employer shall pay to any individual. But if a trades' society, in addition to operating as a benefit society in cases of sickness and death, should also become a simple trade agency where information might be obtained every day of the state of employment and the amount of

wages in every locality where the same trade obtains ; and should also assist to remove applicants into the best markets, most of the strikes for wages would be prevented ; all the results of a successful strike would be achieved, and whenever the success of a strike is possible, without its expense and loss.

The exception would be where, as at Colne, a strike occurs from misunderstanding or misrepresentation as to the wages paid elsewhere. This strike occurred during a very prosperous trade, when labour was so scarce that every hand employed at Colne might readily have got work elsewhere. But the hands refused to go, because those who did leave soon found that they could do better at home than elsewhere. This class of cases would furnish useful work for an arbitration court. But the constitution of such a court seems to be a great difficulty, if we may judge from the parliamentary discussions on the Masters and Operatives Bill, 1860-1.

I would throw out the hint for consideration that such a court should be honorary, each party to the dispute naming an equal number of jurymen, the County Court judge for the district being appointed umpire, and from this court I think it would be desirable to exclude lawyers. The parties would be evenly balanced, the umpire would be perfectly disinterested, and legal expenses would be avoided. I am advised that this plan would not be objected to by working men if power was given to carry a case to an adjoining district to avoid a prejudiced umpire. These two modes of avoiding strikes could be put in operation, the one by trade societies themselves, the other by the sanction of the Legislature.

But there is a third plan now coming rapidly into operation, which will severely test the capacities of the working classes, and prove whether or not the unfavourable opinions expressed of them lately in Parliament be well founded. I allude to the rise of *co-operative societies* and manufacturing companies with limited liability. I have no doubt that companies and friendly societies for manufacturing purposes, covering a nominal capital of two millions sterling, have been registered. Some of these are simply joint-stock companies in the ordinary sense of the word, except that the mill hands are the principal shareholders, and have, therefore, an interest in turning out the best of work, in order to increase their wages by the division of profits. In other cases various classes of men invest capital as shareholders, and the articles of association provide that after paying interest at the rate of 5 per cent., and allowing for depreciation of stock, the remaining profit shall be divided between the paid-up capital of the shareholders, and the amount of wages paid to the operatives at such a rate per pound as it will make upon the two sums added together. Thus, if 65*l.*, represents the capital required to employ one workman, and that workman earns 20*s.* per week,

then the half-yearly dividend would be upon 917., in the proportion of 65 to the shareholders, and 26 to the workman. If these latter societies pay the ordinary wages, they will, as a matter of course, have their choice of hands; for the workpeople will learn that even if they spend the whole of their ordinary wages and simply allow their dividends to accumulate as shares, twenty or thirty years of employment with ordinary profits will then give nearly as much for interest of money as for wages. Such prospects will secure prudential habits, and the operations of these societies will show to workmen generally what amount of wages can be safely paid at any time; and the "advocates" who have hitherto promoted strikes in the belief that workmen were being oppressed, and that refusal to work was the only remedy, will now employ their energies in getting up co-operative societies, will work to save capital instead of to waste it; and will learn that if wages and profits are low, as when harvests are bad, harder work, instead of no work, at the same or a more profitable occupation is the only remedy.

If the real co-operative societies extend and succeed, it is possible that we may see individual employers, in self-defence, constituting their workpeople partners in profits, in the belief that the extra interest excited in work would make the employers' share of profit greater than the whole amount formerly obtained. Such an arrangement would also tend to prevent strikes; for, if the hands thought wages were too low, they would see it made up by profit, so that the result would simply be an enforced measure of prudence. These societies have yet to bear the test of "bad times;" and, although they have some advantages over the individual employer, as in the extra devotion of the well-disposed workmen, and in the possibility of living even without profits or interest of capital, where that capital belongs *bonâ fide* to the shareholders; yet they are not likely to pass scatheless, through a crisis, and are only a present remedy for strikes to the extent that workmen who believe themselves wronged can be persuaded to submit to that wrong while they earn and subscribe capital sufficient to employ themselves.

To resume, therefore, I conclude that a strike to restrict a trade, either by limiting the number of apprentices, or preventing the employment of efficient workmen who have not been apprenticed, being an invasion of individual liberty, ought not to succeed; and that the more rigidly such restrictive rules are enforced the sooner will they be destroyed. Strikes against improved machinery are attempts to stay the progress of human intellect and of civilization; they originate in ignorance of the tendency of such improvements; the displacement of labourers caused by new machinery is an occurrence to be provided against by well-regulated trade societies, in the form of temporary relief, until the labourers can be replaced or

otherwise provided for. But strikes against new machinery can never permanently succeed, and all money thus spent is therefore entirely thrown away. When a trade is in such a position as to render a union of employers for a reduction or against a rise of wages possible, a strike cannot succeed; for as long as there is machinery standing idle, if a fair profit be possible, hands will be sought for that machinery at a rise of wages if necessary, in order to secure the profit; and whenever it is possible for a local strike to succeed it must be either because wages in that locality are below the average, or because the demand for hands being general the local employers give way rather than lose their workpeople. That in all such cases trade societies, by operating as trade agencies, and assisting in the gradual removal of hands to places already secured for them, would achieve an equal success without a struggle, without wasting a week's wages, and without a thousandth part of the ill-feeling which is consequent upon a strike. Strikes are therefore either wholly injurious, or an entire waste of effort to an extent, as I believe, of not less than a million sterling per annum, or the bread of 88,470 persons, with their natural increase for ever. I think that a court of arbitration would be able to deal with local misunderstandings and misrepresentations, and would heal many differences before they came to an open rupture; and that co-operative societies, whether they succeed or fail, will find employment for much talent hitherto misdirected, and will teach lessons of wisdom and prudence which will render such a foolish waste of capital as that lost in and spent upon a strike for wages almost impossible.

On the EXTENT and RESULTS of CO-OPERATIVE TRADING ASSOCIATIONS at ROCHDALE. By REV. W. N. MOLESWORTH, M.A., Incumbent of St. Clement's, Rochdale.

[Read before Section (F), at Manchester, 7th September, 1861.]

THE progress of co-operation in Rochdale has excited much attention and interest in various parts of the country, and I have been requested to read a paper on the subject before this Section. I am sorry that I have had very little time to devote to the preparation of it. I regret this the more because the subject is certainly one that deserves a much more elaborate treatment than I have been able to give to it. Co-operation is producing a great change in the condition of the working class, and in the relation which that class bears to every other class of the community. Like all great changes, it has called forth on the one part, warm, energetic zeal, and on the other profound though not loud hostility. With these passions we have nothing to do here. We must thrust them aside as being hostile to that philosophic calmness which is the first and most essential qualification of the inquirer after truth. To see in order to foresee, to observe to investigate, and to state, in a convenient and condensed form, the results of our investigations, this is our mission, and this is the spirit in which I propose to enter into the examination of the subject.

I had originally intended to have given an account of the general progress of co-operation throughout the kingdom, and from it to form as accurate an estimate as my materials would enable me to do of its future prospects; but this undertaking I find to be too great for the very limited time I have been able to devote to the subject, and therefore I propose to confine myself to a brief statement of the progress which has been made in Rochdale, where the movement may be said to have originated, and whose society has been the type and the parent of thousands of similar societies which now exist in various parts of the kingdom.

The first thing that seems to be requisite, is to give some sort of definition of the principle which is embodied in these societies, and I cannot do this better than by copying their own statement of their objects.

"The objects of this society are the social and intellectual advancement of its members; it provides them with groceries, butcher's meat, drapery goods, clothing, shoes, clogs, &c. There are competent workmen on the premises, to do the work of the members, and execute all repairs. The capital is raised in 17.

" shares; each member being allowed to take not less than 5, and
" not more than 100, payable at once or by instalments of 3s. 3d. per
" quarter. The profits are divided quarterly as follows:—1st.
" Interest at 5 per cent. per annum, on all paid-up shares; 2nd. 2½
" per cent. off net profits for educational purposes, the remainder
" divided amongst the members in proportion to money expended.
" For the intellectual improvement of the members, there is a
" library consisting of more than 3,000 volumes. The librarian is in
" attendance every Wednesday and Saturday evening, from seven
" to half-past eight o'clock. The newsroom is well supplied with
" newspapers and periodicals, fitted up in a neat and careful manner
" and furnished with maps, globes, microscope, telescope, &c. The
" newsroom and library are free to all members. A branch reading
" room has been opened at Oldham Road, the readers of which meet
" every second Monday in January, April, July, and October, to
" choose and sell the papers."

I have given this statement at a full length, though there are some portions of it which may seem not quite relevant to our purpose, yet it contains nothing which does not throw some light on the spirit in which the society has been conceived and carried on. In sciences, which have been carried to a high pitch of perfection, such as astronomy and the physical sciences, accuracy of definition is indispensable, but in the less advanced and more complex questions of social science, we cannot define with the same degree of strictness, and it is much better to make our boundaries include too much than to render them too narrow.

It may, perhaps, provoke a smile to find in the above-cited statement of objects, "social and intellectual advancement" placed in such close juxtaposition with "groceries, butcher's meat, drapery goods, clothing, shoes, and clogs." But there is a real and very close connexion between these two classes of things. Men must be provided with the necessaries of life, or they will be unable to devote attention to their social and intellectual advancement; and the more abundantly their material wants are supplied, and the more they are released from care and anxiety about these wants, the more time will they have at their disposal to devote to their mental and spiritual improvement; and the greater, as a general rule, will be their intellectual, social, moral, ay, and I would even add, their religious progress. There are, no doubt, instances in every class, and in every society, in which the increase of prosperity is attended by an increased indulgence of the lowest passions and vices of our nature; but all experience shows that such cases are rare and exceptional, and that for one instance in which the leisure and opportunities which increased prosperity brings, are abused and perverted, there are thousands in which they are rightly and beneficially used.

I know that it is a sort of moral and philosophical common place to associate wealth with licentiousness, corruption, and decay—to point to Tyre, and Babylon, and Rome as instances and proofs that the acquisition of wealth, and the consequent command of all the necessities of life, and a vast abundance of superfluities, are the harbinger of decay, and the cause of the most frightful moral and political dissolution. But it was not the wealth of these cities, but the excessive inequality of its distribution that produced their downfall. When the opulence of the few stands in ominous contrast with the squalidness and misery of the multitude—when on the one hand there is superabundance and on the other starvation, here riotous licentiousness, and there cowering, downtrodden, sullen servility—when every Dives looks on thousands of Lazaruses—then it is that the wealth of a State is the cause of its dissolution, and the forerunner of its fall. But when the wealth of a society is not equally but equitably distributed through all its various classes, when in fact it is allowed to take its normal and natural course, then the material progress becomes the instrument and the condition of every other description of progress.

I have dwelt on this point at a length somewhat out of proportion to the size of the paper, because it is one with regard to which a good deal of error and misconception prevails, and because the principle of making material progress the basis of intellectual and social progress is, I believe, a fundamental principle of co-operation. It is a principle which the Rochdale co-operators seem to have instinctively grasped from the very first, and to which they have steadfastly clung ever since. This wise pertinacity in regarding the material progress as the basis and foundation of every other descriptions of progress, has to my mind hallowed and sanctified their enterprise, distinguishing it most honourably from many institutions of a similar constitution, though founded and conducted in a less large and generous spirit, and preserving it from the ruin which has overtaken so many of them.

Having now pointed out the general ideas on which the society was founded, and which were more fully and distinctly developed as it grew, we shall proceed to trace its financial history.

In the year 1843, when the "Rochdale Equitable Pioneers' Co-operative Store" commenced, the new poor-law had prevented the operatives of Rochdale from regarding parochial relief as a source on which they might always rely in case of loss of work, and of those periodical crises to which our manufacturing system has always been liable. The recent failure of the Rochdale Savings' Bank, which had been plundered to fearful extent by its accountant, had destroyed all faith in that popular institution; and the Rochdale operatives, who looked beyond the present moment, seemed to have

no alternative but that of hiding their little savings in an old stocking, to be brought out of its place of concealment when the day of distress arrived. It was under these circumstances that twenty-eight Rochdale operatives contributed a sovereign each, for the purpose of establishing a shop, at which they might purchase genuine groceries and other articles of ordinary consumption at a moderate rate. It was an experiment which had often been tried before on a larger scale, and apparently under more favourable auspices, and had as often failed, but from the causes we have mentioned, the condition of the Rochdale operatives was desperate, and like brave men they determined not to succumb, but to make another effort and hope for better days.

The following table taken from their Almanac for the year 1861, gives a very good view of the operations of the Rochdale society from its commencement to the close of last year:—

*Operations of the Rochdale Equitable Pioneers' Co-operative Society,
from 1844 to 1860.*

	Number of Members.	Amount of Funds.	Business Done.	Profits Made.
		£	£	£
1844	28	28	—	—
'45	74	181	710	32
'46	80	252	1,146	80
'47	110	286	1,924	72
'48	140	397	2,276	117
'49	390	1,193	6,611	561
'50	600	2,299	13,179	889
1851	630	2,785	17,638	990
'52	680	3,471	16,352	1,206
'53	720	5,848	22,760	1,674
'54	900	7,172	33,364	1,763
'55	1,400	11,032	44,902	3,106
1856	1,600	12,920	63,197	3,921
'57	1,850	15,142	79,788	5,470
'58	1,950	18,160	71,689	6,284
'59	2,703	27,060	104,012	10,739
'60	3,450	37,710	152,083	15,906

After the society had been carried on for seven years, it was found that more capital was offered to be invested than could be profitably employed in the store. At the same time there were great complaints of the quality of the flour sold in the shops, which was supposed in many cases to be greatly adulterated; in fact, there was at the time a very strong feeling on the subject of adulteration everywhere, and this feeling very naturally applied to

flour, as a chief constituent of food, more than to any other article. The consequence was that in the year 1850 a Co-operative Corn Mill Society was established, for which a substantial mill was built in Weir Street, Rochdale, the financial progress of which is exhibited in the following table:—

Financial Statistics of Rochdale District Corn Mill Society, from 1850 to 1860.

Year.	Amount of Funds.	Business Done.	Profits Made.
	£	£	£
1850	—	None.	—
'51	2,163	*	None.†
'52	2,898	7,036	336
'53	4,143	16,679	208
'54	3,671	22,047	557
'55	4,626	28,085	1,376
1856	8,784	38,070	773
'57	10,601	54,326	2,007
'58	14,181	59,188	3,153
'59	18,236	85,845	6,115
'60	26,618	133,125	10,164

* Account mislaid.

† 1851, loss 421*l*.

The success which attended the operations of these two societies produced great confidence, and was followed by a desire on the part of the operative class to invest their savings in them, and this soon produced the necessity of finding another investment for their capital. Accordingly in the year 1854, a manufacturing society was formed on the same general principles as the store and the corn mill society, and has been attended with similar success. At first they hired buildings in which the manufactures were carried on. But on the 22nd April, in the year 1859, they laid the first stone of a factory of their own, which was completed, I believe, without a penny being borrowed during the progress of the work (in fact, they always had a very large balance at the bank); and it is universally admitted to be one of the best and largest factories in the borough of Rochdale. Scarcely was this gigantic work finished, than they found themselves in a position to commence another factory alongside of it, which is now rapidly rising, and for the completion of which there is reason to believe that ample funds will be forthcoming.

But these great works,—such has been the rapidity with which capital has been developed by the success of their operations,—have not exhausted their resources. In the year 1860, while the great factory was still rising, a sick and burial society and a Turkish bath were established by some of the more active and energetic members

of the co-operative society; and lastly, in the present year, a land and building society has been established, and is already actively engaged in erecting commodious dwellings for the working class.

The capital of these various institutions at the present time is thus estimated:—

	£
Co-operative store	39,335
Corn mill	29,962
Manufacturing society	71,695
Land and building society	1,000
Turkish bath	350
Total	142,342
Deduct loans from store to other societies	16,613
Leaving a net capital of	125,729

This capital consists of actual money, or stock purchased by money, and which might very fairly be estimated at a value considerably above its cost price.

Now let us pause for a moment to consider the progress that has been made.

	£
In the year 1844 the capital was	28
„ 1850 commencement of corn mill	2,299
„ 1854 „ man. soc.	11,144
„ 1861	125,729

But this does not by any means represent the whole of the financial co-operative progress in Rochdale. Several other societies have come into existence, which, though independent of this, not recognizing so clearly as this society the principles of co-operation as laid down by them, are nevertheless societies which receive and develop the resources of the working classes, which tend to raise them morally, socially, and intellectually, as well as materially, and which must not therefore be wholly left out of our account in estimating the progress which co-operation has made in Rochdale. It would be foreign to my present purpose to enter into an enumeration of their operations. I only refer to them in order that the Section may understand that the progress described in this paper is very far from representing the whole of the results of the principle of co-operation in the town of Rochdale.

There is one thing to which I would advert before I leave the subject, which is greatly to the credit of the principal promoters of this movement, and is all the more necessary to be mentioned, because the contrary is sometimes asserted. I cannot, of course, speak for all of them, but as far as I have had an opportunity of observing them, I have been struck with the absence of that levelling spirit,

and of that desire of self-aggrandizement which has characterized some of the working-class attempts to elevate themselves. The chief ambition of the principal promoters of the movement in Rochdale appears to me to be to raise themselves by raising the class to which they belong, without desiring to leave it, and without the slightest wish to depress or injure any other class. Their object and their ambition appears to be that the working class should be well fed, well clothed, well housed, well washed, well educated—in a word, that they should be respectable and respected. If any taint of the socialist and communist theories in which the society originated still cleaves to them, it is being rapidly worked off, and will, I am persuaded, shortly disappear. And, to their honour be it spoken, so far are they from trying to monopolize the advantages they have acquired, that they are animated by a generous spirit of proselytism, and put themselves to considerable trouble and expense in communicating to inquirers from all parts of the kingdom the results of their experience, and aiding them in the formation of new societies. The following extract from a paper they have printed for the use of persons wishing to form new societies, will serve to illustrate this remark, and will, I am sure, be listened to with interest by the Section:—

“ 1st. Procure the authority and protection of the law by enrolment.

“ 2nd. Let integrity, intelligence, and ability be indispensable qualifications in the choice of officers and managers, and not wealth or distinction.

“ 3rd. Let each member have only one vote, and make no distinction as regards the amount of wealth any member may contribute.

“ 4th. Let majorities rule in all matters of government.

“ 5th. Look well after the money matters. Punish fraud when duly established by the immediate expulsion of the defrauder.

“ 6th. Buy your goods as much as possible in the first markets; or, if you have the produce of your industry to sell, contrive if possible to sell it in the last.

“ 7th. Never depart from the principle of buying and selling for ready money.

“ 8th. Beware of long reckonings. Quarterly accounts are the best, and should be adopted when practicable.

“ 9th. For the sake of security, always have the accounted value of the ‘Fixed Stock’ at least one-fourth less than its marketable value.

“ 10th. Let members take care that the accounts are properly audited, by men of their own choosing.

“ 11th. Let committees of management always have the authority of the members before taking any important or expensive step.

" 12th. Do not court opposition or publicity, nor fear it when it comes.

" 18th. Choose those only for your leaders whom you can trust, and then give them your confidence."

The principles by which the society whose progress has been described is distinguished from the numerous joint-stock societies established under the Limited Liability Act, appear to me to be these:—

1. To make the material improvement of the working class subservient to their social and intellectual advancement.

2. Neither to give nor take credit.

3. To keep the governing body under the constant and vigilant superintendence of a proprietary resident on the spot, and the greater part of whom are acquainted with the nature of the operations carried on with their capital. This is a cause of their success to which, I believe, attention has not yet been directed, but which is very important.

On these principles two questions arise—

1. Are they sound?

2. Are they applicable to manufacturing operations, as well as to store for the sale of goods?

On these questions I do not profess to dogmatise. I see this institution established and carried on for sixteen years under my own eyes. I am naturally desirous to investigate its character; it is an inquiry of no small importance, and one which I think ought to receive the careful attention of this Section. I trust that it will obtain a calm and dispassionate consideration, that we shall have no declamation, no invective, and that gentlemen present will abstain from introducing irrelevant considerations into an investigation quite large enough to occupy all the time we shall be able to devote to it.

On the ALTERED CONDITION of the EMBROIDERED MUSLIN MANUFACTURE of SCOTLAND and IRELAND since 1857. By JOHN STRANG, LL.D., City Chamberlain, of Glasgow.

[Read before Section (F), at Manchester, 5th September, 1861.]

THERE are few things more curious to note than the rise or decline of any manufacture whose existence and value mainly depend on female caprice or changeful fashion; and among the various industries of this nature in the world, and particularly in our own country, perhaps none, from its past and present condition, affords better evidence of this peculiarity than the manufacture of *embroidered muslins*, exhibiting as it does a most rapid progress and an equally remarkable decline.

At the meeting of the British Association at Dublin, in 1857, I had the honour of bringing before the Economic Section a paper on "The Rise, Progress, and Value, of the Embroidered Muslin Manufacture of Scotland and Ireland," in which it was shown that this delicate and beautiful branch of artistic industry had not only given a stimulus to taste in design and execution, so as to have gained the patronage and encouragement not only of the refined, and even of the working classes in Europe and America, but had at the same time afforded wide-spread employment to a vast number of females in Scotland and Ireland—not pent up in close and contaminating factories, but living under the safeguard of the domestic roof, thereby increasing the comforts and encouraging habits of industry within the cottage and the cabin, and adding to the well-being and prosperity of the nation. It was also then showed that there were few manufactures in which existed so great a subdivision of labour. Commencing with the spinning of yarn for making the cloth, the warping and weaving of the yarn, and the reeling of the cotton for embroidering; and followed by the designing and drawing of the patterns either on the stone or zinc plates; the block, stereotype, or copper engraving; the printing of the patterns on the cloth; the despatch of the different pieces of printed cloth to at least 400 or 500 agents in Ireland; the distribution of these throughout the country for embroidering; their return to the agents, and their transit back to the warehouses from which they were issued; their careful examination on their return, and their preparation for the bleacher; the various operations to which they were subjected at the bleach-field; their return to the warehouse, there to be made up, ironed, folded, ticketed, and arranged according to quality and price; and, finally, their being placed in fancy paper boxes, and packed for despatch either to the home or foreign market. I also showed that while a large portion of the labour employed in this industry

depended on Ireland, the chief seat of the manufacture was in *Glasgow*. It was in the latter city where the cloth was chiefly woven; where the patterns were designed and printed; where the goods were bleached; and where they were made up, washed, ironed, and finished for the market; and, in particular, where the chief commercial and financial part of the trade was carried on. In short, while the initiatory and concluding manipulations connected with this industry were almost wholly performed in *Glasgow*, the needle-work, although partly done in Scotland, and particularly in *Ayrshire*, was chiefly executed by the female peasantry of Ireland.

The *gross value* of the sewed muslin manufacture of Scotland and Ireland in 1856 amounted to little less than a *million pounds sterling*, and was disposed of not only in about equal proportions in the home market, and in the United States of America, but also in considerable quantities in Canada, Australia, and almost all the other markets open to British enterprise. At that period there were employed in the production of the manufacture no less than 2,200 weavers, 450 pattern printers and presemen, 200 designers and salesmen, and 3,680 females occupied within the warehouse doors in the various manipulations of sewing, darning, ironing, making-up, &c., while in the work of embroidery itself about 200,000 females were employed in Ireland, and 25,000 in Scotland. The amount of wages paid annually to the several immediate parties employed was shown to have been at least 700,000*l*. The fact is, that among the many industries of Great Britain there are few into which individual labour enters more deeply than into the muslin embroidery manufacture, and in which, particularly, the female labourers throughout Ireland and throughout *Ayrshire*, in Scotland, have a deeper interest.

Such was the state of this manufacture when it reached its culminating point in 1857. Let us see what its condition now is, founded on returns lately obtained from sources that may be relied on. It appears, then, that the number of persons employed during the summer of 1861 in this branch of industry in Scotland and Ireland were as follows:—

	Persons Employed.	With Annual Wages amounting to
		£
Weavers	280	8,600
Printers	150	5,400
Designers and salesmen	96	5,850
Warehouse girls	680	11,648
Sewers (Ireland)	75,000	136,000
„ (Scotland)	9,000	26,000
Sundries	—	7,002
In all	85,206	200,500

Showing a falling off in the annual amount paid for labour of no less than 499,500*l.*, and a probable falling off in the number of persons employed of 146,324. Of these 5,324 were engaged in the initiatory and finishing processes, and 141,000 were the female embroiderers of Ireland and Scotland, 125,000 belonging to the former, and 16,000 to the latter. While this branch of industry in 1856 and 1857 afforded to those engaged in embroidery alone wages to the extent of 486,300*l.* a year, in 1861 the annual wages had dwindled down to about 100,000*l.*—the whole labour employed in the various details of the manufacture giving annual wages to the extent of 700,000*l.* in 1856 and 1857, and only a little more than 200,000*l.* in 1861. In short, this trade, which formerly had been so flourishing and so progressive, has in the course of a few short years fallen off from an annual value of fully a million sterling to an amount which this year scarcely reaches a third of that sum, occasioning thereby much distress and privation among the various workers employed, but especially among the industrious peasant girls of Ireland and the West of Scotland.

If such be the general condition of a manufacture which but a few years ago was not only remunerative to the manufacturing capitalist, but peculiarly beneficial to the wide-spread host of manipulators connected therewith, the distress which now arises from its sudden decline will appear more palpable when we look more narrowly into the altered condition of the workers' wages. For example, when we represented in our former paper that the sewers in Ireland amounted to 200,000, and were receiving 400,300*l.*, which showed a little more than 1½*d.* per day, these parties were classed thus:—

1st, Those who took up the work at any moment they could spare from domestic duties.

2nd, Those who were able, and had the opportunity of engaging in field labour, and only took to sewing when out-door work was not to be had.

3rd, Those in towns who could get no out-door work, and young girls in the country who were unable for field labour, and who were employed solely at sewing.

In 1856 the daily earnings of this last class ranged from 3*d.* to 1*s.* per day, or an average of about 5*d.*; whereas the same class are incapable of earning more than from 1*d.* to 5*d.* per day, the average being barely 2*d.*

As to the warehouse girls, who were represented in 1856 to have amounted to 3,680, and who then received 76,128*l.*, or about 8*s.* per week, it may be stated that many of these carried the work to their own homes, in which case there might have been two or three, or even more, of a family employed in the work; but as the name of

the one only who took it from and returned it to the manufacturer was on his books, the number really employed must have been greater than 3,680, and their average earnings probably not more than 6s. per week. At the present moment those 3,680 that were on the manufacturers' books in 1856 have dwindled down to 680; while the wages paid to these 680 only average about 5s. per week, including the work done by those they may employ.

The more closely, in fact, we investigate the details of this manufacture the more important will the labour it employs appear to be, producing, as it does, a wide-spread amount of suffering when it is dull, and a wonderful diffusion of comfort when it is brisk. Whatever may be the causes that have led to this sadly-altered condition of a manufacture which encouraged so much artistic skill and taste, and scattered so much enjoyment around the hearths of the homesteads of Scotland and of the cabins of Ireland, we suspect that the chief source of its late decline may be mainly found in the *capricious fickleness* of female fashion.* And although it may be difficult to fight against fashion in a manufacture so fanciful as this certainly is, still it is to be hoped that so long as the tasteful designer continues to dream after some new shape or some new pattern—so long as the unwearied energy of the manufacturer is exerted to create new articles of utility, and the restless activity of the merchant is spent on discovering some new market for their disposal, the future of the muslin embroidery manufacture will ere long become, as heretofore, a pleasing and profitable occupation during the intervals of field labour and domestic duties to at least as great a number as it formerly did of the industrious females of Scotland and Ireland.

* While the American civil war has no doubt tended mechanically to aggravate the present sad condition of the muslin embroidery manufacture, the leading cause of its declension must be fairly attributed to the glut which the over-production of 1856-57, occasioned both in the home and foreign market, forcing sales at ruinous prices, and thereby *vulgarising* the manufacture and tending to render it unfashionable among the better and wealthier classes

POST OFFICE SAVINGS' BANKS. *By* EDWIN CHADWICK, C.B.

HAVING been asked by several members of Parliament my opinion on the new measure for *Post-Office Savings' Banks*, I have stated, in answer, that I know no measure proposed in late times affecting particularly the condition of the wage, and the lower middle classes of the community, which appears to me to be so excellent in principle. There is, however, one aspect which I beg you will allow me to point out in which its importance has not been stated, namely, as a measure for the prevention of much crime.

It has appeared in official investigations, made by myself and colleagues, under the Constabulary Force or Police Commission of Inquiry, as to the causes and incitements to crime, that a large proportion of burglaries and murders—especially the murders of old and lone people—have been on account of known or suspected hoards of money. A recent execution was for a murder with this motive. The murder committed by the man named Mullins on an old woman living at Stepney, was one of this class, of which other examples of continued occurrence may be recalled to recollection. A large proportion of domestic robbery and crime is for sums of money, which for the station of the parties are considerable, kept in the house; and it has somewhat surprised me on the occasions which continually present themselves in our criminal courts, that the lesson does not commonly suggest itself to be given from the Bench—that such sums ought, for the avoidance of temptation to rapacity, and for the sake of personal safety as well as for the sake of economy, to be in some well-assured place of deposit in some bank.

We found that such classes of offences are of *far less* frequent occurrence in towns in Scotland than in England,—apparently from the simple fact that from the habit of banking prevailing amongst the poorest classes—shopkeepers, and tradesmen, and others—the smallest sums are ultimately taken to the bank, and no such amounts of money are kept habitually upon the premises or hoarded as in England.

Such facts as this habitual exposure of large sums of money, and the consequent regular classes of crimes therefrom, come under a wide chapter to show what cannot be expected to be done by any police, and what must be done by the public themselves, or by means of collateral arrangements and institutions for the prevention of crime. Good banking institutions, with arrangements in detail for the convenience of the many in the keeping and transmission of money, may be almost regarded as institutions of a preventive police.

If any one will imagine what must be the consequences if all the money belonging to the higher and middle classes in banks of deposit were kept at home in bullion, and all that is carried about in cheques were carried on the person in coin, and if he will consider how much personal danger would increase, notwithstanding an increased army of police, he will go far to realize the actual state of insecurity of persons and property of the lower classes in districts and conditions to which the practice of banking has not yet been extended.

After all, if the whole of the deposits in the Savings' Banks belonged to the labouring classes (and a larger proportion of them than is commonly supposed are from the middle classes), the amount is inconsiderable from a population who spend every year greatly beyond the total amount of many years' accumulations, or upwards of sixty millions per annum, in various stimuli, the greater proportion of which they would be better without.

The causes of secret hoarding, or of the comparatively little use of Savings' Banks, appeared to be chiefly in want of confidence and want of convenience. In part, the want of confidence arose from dense ignorance and unreasonable suspicion and jealousy. Old and poor people have heard of banks breaking, and unhappily they have had proofs that such banks have broken, and they have little means of satisfying themselves as to those which are trustworthy. The Wage Class frequently see that "master" or master's friends are amongst the managers, and are disinclined to have their savings brought under their notice. Moreover, the poor man who appears to be in steady work is commonly subjected to solicitations for aid from his poor and shiftless relations and from family paupers, to whom his answer is that he really cannot help them, meaning that he feels that he neither ought nor will do so, but if he be seen to enter a Savings' Bank, he is disarmed of such an excuse, and is subjected to additional persecution. It is inconvenient also to have to attend the bank at fixed times, and it is annoying to attend with a number of others. It is found in common in the metropolis for depositors not to deposit in the bank in their own immediate neighbourhood, but in a bank at a distance. Persons living on the south side of the Thames make their deposits in banks on the north, and *vice versa*. In many districts the extreme distance also of any Savings' Bank formed an insuperable difficulty to the personal attendance of depositors of single shillings and payment of small savings which, if not immediately deposited, "burn holes in their pockets," and are not saved at all. In Devonshire this difficulty is in part obviated by an excellent organization by which the clergy act as collectors from such of their flock as they influence into habits of frugality. Under such circumstances, and having a view to the

special purpose of the prevention of depredation, we were prepared to point out the expediency of measures for the removal of inconveniences and of grounds of distrust, and for encouraging the making of deposits for the promotion of the habit of banking.

The proposed measure appears to me to be of excellent conception and happy promise for the attainment of these ends with the other general and immediate object—the formation of frugal habits. It offers the highest possible security ; it accords with the use of the post-office for the transmission of small sums, amounting to many millions of money, by money orders. The Post Office Savings' Bank will be open daily for the greater convenience of the depositor, with the least occasion for particular observation ; and it is to be expected that the officers will be required to conciliate confidence, and that the convenience of depositors of all classes, without any reservation or distinction, will be carefully consulted. I say without distinction, for conveniences are needed for temporary investments, or for the safe custody of sums of money belonging to the higher middle classes, too small for investments in banks belonging to their class, or which are now kept on the premises, waiting for a higher and more profitable order of investment. The measure at once gives a fourfold extension of places of deposit presenting these advantages. Alarm at the extent of money which may be brought in is alarm at the extent of accommodation for safety and frugality which, as the service will be paid for, I hope by good administration be justified. To the cry of centralization raised against the measure, it may be answered that the people ought not to be subjected to their local institutions—with arrangements which they do not like, nor to have their necessities made a source of profit for local private officers, with only limited and imperfect responsibility, if they prefer the service of the general and more responsible public agency of the postal department. The measure is in extension of freedom.

In illustration of the crime committed from the temptation of the exposure of property, which extended banking facilities, though perhaps of another and higher order, would prevent, I take occasion to mention one large class of robberies of common occurrence in the metropolis. A tradesman takes his wife on an excursion on the Saturday or Sunday to Gravesend or elsewhere, and leaves the house in charge of a single servant, a girl, or of other servants, who take holiday too and leave her alone. A young fellow, a thief in the guise of a suitor, gains admission to the house, and robs it on ascertaining from her where her master keeps his money, and tempts her to become an accomplice ; and those who leave property thus exposed afford temptation to the ruin of female servants and to depredation also. A recent case of the attempted theft of a large sum of money, more than one hundred sovereigns, left by a butcher in his shop,

under the care of a girl, is (except as to the attempted murder of the girl) an example of frequent occurrence, as the police well know. The thefts, by servants, of money left on the premises is one of the largest and most constant kinds of depredation with which the police have to deal. Last year the amount of loss in the metropolis (chiefly of money left habitually on the premises) exposed to temptation (but which, under considerate arrangements and habits, as in Scotland, from the convenience and the thrift of the interest on the deposits, however small, would be in some bank) was, as reported by the police, 18,015*l.*, besides 8,643*l.* stolen by lodgers and other inmates. Nor are these extraordinary annual amounts the whole, for the whole is not reported to the metropolitan police. The police returns show an average of some 500 servants yearly prosecuted for larceny. It may be mentioned that the early Saturday closing of the established banks has, by preventing the deposit of much of the money received only on the Saturday afternoon, extended the exposure and danger to depredation of the property of professional persons and higher classes of manufacturers and tradesmen in the habit of banking. To obviate it and diminish the Saturday and Monday robberies, the banks might surely make arrangements for the receipt by their house-porters of closed cash-boxes after the banking hours, and for their safe custody until the time of opening on the Monday following. In these boxes might be enclosed, placed out of temptation for the time, silver spoons or valuable articles of jewellery.

Great good might be accomplished by provision for the regular issue of authoritative expositions of the causes of crimes and the means of preventing them, and of admonitions to the duty of adopting them, and of "leading not into temptation." In fine, in respect to this measure of the Post Office Savings' Bank, considering the example of the utilization of numerous postal establishments for the public service, and especially for the service of the most numerous classes, it may be stated, as was observed in the House of Commons by the late Sir Robert Peel, on the Encumbered Estates Act, that it was "so thoroughly good a measure that he wondered how ever it "passed."

I think, too, that social reformers, economists, and the public at large may be congratulated that this measure has the peculiarly good fortune, as I deem it, of being proposed and passed at a time when it may have the care of such permanent public officers as Sir Rowland Hill (and, I may add, of his able assistant, Mr. Frederic Hill), to whom we owe the initiation and progressive development of one of the greatest administrative, economical, social, and educational improvements of our time.

MR. OLMSTED'S *Account of the PRESENT CONDITION of the SLAVE
REGIONS of the UNITED STATES.**

[So much interest is at present felt in American topics that we avail ourselves with pleasure of the following able review in the (London) "Spectator" newspaper, of 12th October, 1861, of the volumes recently published by Mr. Olmsted, the well-known New England traveller, on the condition of the Slave States of the Union.]

"This book is a compendious recast of Mr. Olmsted's invaluable volumes on the Slave State—volumes full of acute, pithy, and significant delineations which bear in every line the stamp of an honest and unexaggerating, but close and clear-sighted study of those States. To those who have read Mr. Olmsted's volumes as they appeared, there will be little that is new in this recast; but works so faithful and discerning deserve a form as convenient as their substance is weighty; and to have the three former volumes well condensed, and connected with a single and copious index, is a boon for which no genuine student of the Southern institutions will be unthankful. All we can propose to ourselves is to draw attention to the most important results fully established by Mr. Olmsted, giving, wherever it is possible, brief individual illustrations from his book, in order to bring the significance of his inferences more broadly before our readers.

"First, then, in the Southern States, the value of capital and labour is determined almost exclusively by reference to a standard which is only appropriate in a very small portion of the territory, and even there only to a very small fraction of the land, capital, and labour of that portion—we mean the value of those cotton lands which are cultivated at the best profit. It is a familiar truth with economists that in all professions where very high prices are to be obtained, the general rate of profit is far below the average of other professions. This principle governs the cost of labour in the Slave States. The value of all slaves is measured with relation to the value of a good field hand on a cotton plantation of far more than the average (though less than the maximum) rate of profit. This is so, even in the Border Slave States, where no cotton is grown. For even there the possibility of realizing the value of a slave-estate by selling all the strong hands 'down South,' is one with reference to which the proprietors uniformly estimate their available wealth. The form in which the richer Cotton States receive their accumulating wealth is—new importations of slaves. The breeding states, on the other hand, while they estimate their wealth by the value which they *might* realize if they sold all their slaves to the richer cotton-planters, practically do apply much of this costly slave labour to occupations like tobacco-planting, ordinary farm labour, and household service, which bring back no proportionate returns. In

* "Journeys and Explorations in the Cotton Kingdom; a Traveller's Observations on Cotton and Slavery in the American Slave States." Based upon three former volumes of Journeys and Investigations by the same Author. By Frederick Law Olmsted. Two vols. Sampson Low.

fact, therefore, so far as they keep the slaves at work on their own estates instead of selling them to the cotton-planters, they are losing the interest on their money-value. A slave who, if sold to the South, would command 1,200 dollars, and so gain the owner, if invested in Northern commerce, 120 dollars annually, is retained at work which perhaps does not yield 4 or 8 per cent. on that value, or from 36 to 48 dollars annually; so that the Northern Slave States, so far as they are cultivated at all, practically fritter away their resources on the effort to retain for unremunerative home-work a kind of labour which they estimate by its value in a foreign market. Now, when we consider that of the 500,000,000 acres of the Slave States, not more than 1 per cent., or 5,000,000 acres, are devoted to this remunerative cotton culture at all, and that of this 1 per cent. certainly not a quarter is cultivated with that energy and capital, and with that yield of profit which practically determines the cost of slaves, we may estimate with some degree of accuracy how gigantic a mischief the whole system is. The Slave States are, in fact, a gigantic lottery, in which only the very few draw prizes, yet in which, buoyed up by speculative hope, all pay much more than the proper cost of their individual chance of a prize. The Cotton Culture can only be profitably pursued with large gangs of labourers, experienced overseers, and on *rich* lands. Rich lands, indeed, are plenty, but capitalists rich enough to purchase large gangs of labourers, and skilful enough to provide proper superintendence, are few. Yet all pay for their slaves at a rate which is so high as to be only really profitable to these few; and in the Border States this costly labour, so far as it is employed at all, is employed on work on which it is in fact thrown away.

"The result is, that only those planters are really rich in Virginia and the Border States who have a good deal of property either in rich cotton estates 'down South,' or in Northern securities, and who are content to spend their incomes so acquired on their Virginian estates, just as an English gentleman farmer spends instead of gains on his hobby of farming.

" 'This exceptional condition, then, it is obvious on the face of things, is maintained at an enormous expense, not only of money, but of nerve, time, temper, if not of humanity, or the world's judgment of humanity. There is much inherited wealth, a cotton plantation or two in Mississippi, and a few slips of paper in a broker's office in Wall-street, that account for the comfort of this Virginia farmer, as, with something of the pride which aposes humility, he likes to style himself. And after all he has no road on which he can drive his fine horses; his physician supposes the use of chloric ether, as an anæsthetic agent, to be a novel and interesting subject of after-dinner eloquence; he has no church within twenty miles, but one of logs, attendance on which is sure to bring on attack of neuralgia with his wife, and where only an ignorant ranter of a different faith from his own preaches at irregular intervals; there is no school which he is willing that his children should attend; his daily papers come weekly, and he sees no book except such as he has especially ordered from Norton or Stevens. This being the exception, how is it with the community as a whole? As a whole, the community make shift to live, some part tolerably, the most part wretchedly enough, with arrangements such as one might expect to find in a country in stress of war. Nothing which can be postponed or overlooked, without immediate serious inconvenience, gets attended to. One soon neglects to inquire why this is not done or

that; the answer is so certain to be that there is no proper person to be got to do it without more trouble (or expense) than it is thought to be worth.'

"The social condition in which Mr. Olmsted found almost all the planters of the south-west, and most of those of Virginia and the Carolinas, is given with great and telling detail. Sometimes it was the result of real poverty, sometimes only of the vulgar meanness of the class of planters who have risen out of the condition of agents or managers. But both in the Border States and in the Cotton States, Mr. Olmsted's traditional impressions of the refinement and hospitality of the patriarchal state received rude and repeated shocks. In almost every house where he is received at all, his reception is the same; he is accepted sullenly, as a necessary evil; he finds no trace of literature, music, or art in the house; he is fed well, lodged uncomfortably, and, in the south-west, generally in beds full of vermin; he is lighted to bed by the planter himself, who acts as candlestick to the dip-candle which he carries, without any holder, in his hand; finds his horse very indifferently attended to, and is charged five shillings when he leaves the next morning. Here is his evidence as to the Cotton States:

"Nine times out of ten, at least, I slept in a room with others, in a bed which stank, supplied but with one sheet, if with any; I washed with utensils common to the whole household; I found no garden, no flowers, no fruit, no tea, no cream, no sugar, no bread (for corn pone—let me insert in parenthesis, though possibly, as tastes differ, a very good thing of its kind for ostriches—is not bread; neither does even flour, salt, fat, and water, stirred together and warmed, constitute bread); no curtains, no lifting windows, (three times out of four absolutely no windows), no couch—if one reclined in the family room it was on the bare floor—for there were no carpets or mats. For all that the house swarmed with vermin. There was no hay, no straw, no oats (but mouldy corn and leaves of maize), no discretion, no care, no honesty at the —; there was no stable, but a log-pen, and besides this, there was no other out-house but a smoke-house, a corn-house, and a range of nigger houses.

"From the banks of the Mississippi to the banks of James, I did not (that I remember) see, except perhaps in one or two towns, a thermometer, nor a book of Shakespeare, nor a pianoforte or a sheet of music; nor the light of a carcel or other good centre-table or reading lamp, nor an engraving or copy of any kind of a work of art of the slightest merit.'

"In addition to this he is generally struck by the moral degradation which free intercourse with the slave-cabins ensures for the growing boys or girls of the planter, so much so that he finds all respectable parents are obliged to send them at an early age to the North to be educated to avoid the brutalizing and impure influences to which they are otherwise exposed.

"The reasons why *Slave Labour* is so costly as to be remunerative only under the special cotton monopoly, are also illustrated in minute and graphic details. In the first place, slave-labour is not only very ignorant and shiftless, but the least danger of its becoming otherwise is met with eagerly repressive measures. Mr. Olmsted quotes several observations on the part of slave-owners to the effect that it did not do for the slaves to be equal to '*taking care of themselves*,' and in one place he adds: 'I begin to suspect that the great trouble and anxiety of Southern gentlemen is, how, without quite destroying the

capabilities of the negro for any work at all, to prevent him from learning to take care of himself.' Another source of failure in slave-labour is the strong *motive* for idleness, and therefore for exaggerating or feigning illness. An amusing illustration of this is given :

" ' Frequently the invalid slaves neglect or refuse to use the remedies prescribed for their recovery. They conceal pills, for instance, under their tongue, and declare that they have swallowed them, when, from their producing no effect, it will be afterwards evident that they have not. This general custom I heard ascribed to habit, acquired when they were not very ill, and were loath to be made quite well enough to have to go to work again. Amusing incidents, illustrating this difficulty, I have heard narrated, showing that the slave rather enjoys getting a severe wound that lays him up :—he has his hand crushed by the fall of a piece of timber, and after the pain is alleviated, is heard to exclaim, ' Bless der Lord—der haan b'long to masser—dont reckon dis chille got no more corn to hoe dis year, nobow.'

" But the worst cases of indolence and demoralization of this sort are those in which the slave belongs to one man and is hired by another. Here the power over him being divided, and his owner not suffering the loss of any indisposition or idleness on the part of the slave, the cases of such feigned illness are innumerable.

" It seems at first sight strange that slave labour being so costly and inefficient, there should not, in the Border States at least, be a strong disposition to employ free labour as largely as possible in order to supersede it. But one of the great vices of the system is that while it makes the poorer whites unwilling to do anything for which a slave is usually employed, it also makes the master most reluctant to employ such aid. The masters answered Mr. Olmsted's inquiries on this head first by stating the reluctance of the whites to undertake such work, and then, when pressed further with the inquiry, ' Why not send North and get some of our labourers ? ' by the direct admission, ' Well, the truth is, I have been used to driving niggers, and I don't think I could drive white men. I should not know how to manage them.' The plea is, no doubt, perfectly sound. The habit of employing slave-labour incapacitates the master for the kind of superintendence which alone would tell upon freemen—the authority without arbitrariness, the firmness without menace, the cheerful kindness without familiarity, which they have unlearned in ' driving ' slaves.

" We have dwelt chiefly on the fruits of the system to the *white* population of the Slave States, and shown that it pauperizes, as well as vulgarizes and brutalizes them. We might easily extend this demonstration to a length far beyond the limits of any newspaper article, but, in conclusion, let us extract Mr. Olmsted's deliberate and reluctant conclusion as to the influence exerted on the slaves themselves by their contact with the white race. He had, he says, always believed and argued that it was to some considerable extent a discipline of value :

" ' The benefit of the African which is supposed to be incidental to American slavery, is confessedly proportionate to the degree in which he is forced into intercourse with a superior race and made subject to its example. Before I visited the South, I had believed that the advantages accruing from slavery, in this way,

far out-weighed the occasional cruelties, and other evils incidental to the system. I found, however, the mental and moral condition of the negroes, even in Virginia, and in those towns and districts containing the largest proportion of whites, much lower than I had anticipated; and as soon as I had an opportunity to examine one of the extensive plantations of the interior, although one inherited by its owner, and the home of a large and virtuous white family, I was satisfied that the advantages arising to the blacks from association with their white masters were very inconsiderable, scarcely appreciable, for the great majority of the field hands. Even the overseer had barely acquaintance enough with the slaves, individually, to call them by name; the owner could not determine if he were addressing one of his own chattels, or whether it was another man's property, he said, when by chance he came upon a negro off the work. Much less did the slaves have an opportunity to cultivate their minds by intercourse with other white people. Whatever of civilization, and of the forms, customs, and shibboleths of Christianity, they were acquiring by example, and through police restraints, might, it occurred to me, after all, but poorly compensate the effect to the systematic withdrawal from them of all the influences which tend to nourish the moral nature and develop the intellectual faculties, in savages as well as in civilized free men. This doubt, as my Northern friends well know, for I had habitually assumed the opposite, in all previous discussions of the slavery question, was unexpected and painful to me.'

"Nor is this a mere opinion. The detailed evidence of the book supports it in full, as indeed it does almost every opinion which Mr. Olmsted advances on this painful subject. We know of no book in which significant but complex social facts are so fairly, minutely, and intelligently photographed—in which there is so great intrinsic evidence of impartiality—in which all the evidences given is at once so minute and so essential, and the inferences deduced so practical, broad, and impressive."

BRITISH WEST INDIA COLONIES in 1859. *Abstract of the Official Reports by the Governors.*

[We are indebted to the "Standard" newspaper of 10th October, 1861, for the following useful abstract of the Colonial Blue Book for 1859. The "Standard" is rapidly earning a favourable distinction in the daily press, for the intelligence and care with which it places before its readers the substance of important public documents. —Ed. S. J.]

"JAMAICA.—In 1859 (which is the last year of the official returns throughout the whole report), the total revenue of this island was 279,935*l.*, and the expenditure 262,142*l.* If we take the three preceding years we observe some fluctuations, which are trifling, and accounted for by purely local circumstances—as buildings and roads, and repayments of floating loans; but these we omit to specify, considering it more acceptable to our readers to devote our space to information rather of an Imperial than of a strictly local character. There is an island debt of 852,000*l.*, but it is in process of annual liquidation. There is no return of the population, but a census is ordered to be taken in 1861; but it is inferred from an ecclesiastical enumeration that the number of souls may be about 360,000. Taking an average of the years 1857, 1858, and 1859, the value of the four great staples—sugar, rum, coffee, and pimento, with logwood and dyewoods—was 1,056,890*l.*; and of the minor articles, 46,609*l.* It is the strongly expressed opinion of Governor Darling, that, on an average of seasons, the *export of sugar* will rarely exceed 30,000 tons, unless immigrant contract labour be more largely employed; and this leads to the subject of negro industry. The Governor sees no prospect 'of an augmentation of the effective strength of that portion of the native population who work *for hire* on the larger plantations,' because he doubts whether sufficient wages can be given for sugar cultivation to stimulate the negro, who is fonder of his ease than of money. His wants are few, and he is indifferent to hoarding. The available statistics of agriculture are however scanty, and quite insufficient to convey a correct and comprehensive view of industrial occupations. But one remarkable fact appears well worthy of attention. If the African race cannot be roused to activity by high wages, they work diligently when they cultivate the *soil on their own account*; and these are now rising up as an independent, respectable, and trustworthy middle class. They are even becoming the employers of hired labour. The gratifying result is that the emancipated race evince a capacity for freedom when they can appropriate to themselves a fair share of the wealth they create. They properly value the possession of a leasehold or freehold property, and in due time we may hope to see labourers, animated by the example of their brethren who have achieved independence, more and more inclined to work for wages as the sole means, if accompanied by economy, of

acquiring that capital which will place them in the position of becoming the owners of moderate holdings. Many years have elapsed since Mr. Carey, the American economist, expressed his conviction that what is now witnessed in Jamaica would prove the true solution of slavery in the Southern states. He predicts that a time will come when 'there will be seen to arise a class of free black men, cultivating for their own use their own land, bought from their old masters, who will find in the price of the land a compensation for the price of the labour.*

"BRITISH HONDURAS.—Here the chief trade is *mahogany*, which has been entirely engrossed by four or five influential firms. Two of these failed in 1859, and the result was great distress at Belize. The resident importing merchants who used to sell goods to purchasers from the contiguous states of Central America have lost their customers by a change in the course of trade, because the facilities of steam packet navigation have induced foreigners to draw their supplies direct from British manufacturers instead of procuring them, as heretofore, through Belize. However, the staple trade in mahogany and dyewoods is maintained with vigour; and there is the prospect of easier communication with Guatemala. The trade of Honduras is, however, small. In 1859 the value of the exports was 288,000*l.*, and of the imports 175,000*l.*

"BAHAMAS.—In 1859 the revenue was 80,727*l.* net. This is a ridiculously small sum; but the value of the imports was 213,166*l.*, and of the exports 141,896*l.* The staple produce of this colony consists of *pineapples and oranges*; but there is another source of trade which will astonish most of our readers—that is '*wrecks*,' which in the very words of the report are described as 'the great and constant element of our trade and revenue.' Neither agriculture nor manufactures offer any profit compared to that derived from the wrecker's vocation. But this subject is so curiously infamous that we shall transfer to our columns the language of the report:—'This calling, which distributes prizes among blacks and whites alike, puts on a level and gives to both the opportunities of easy self-indulgence. As I often had to remark, it involves crime and the connivance at crime. But I doubt whether the treacherous plots which are so successfully laid for the destruction of vessels are generally known to any but the commanders of the wrecking vessels and the masters of the wrecked ships. The crews, I imagine, have a general rather than a special knowledge of the schemes which bring the merchant vessel and the parasitic wrecker close together near a reef. The general demoralisation which the system engenders throughout every class in the colony will increase until American shipowners set the example of greater honesty, and American underwriters are more anxious to suppress the crimes which they condemn than to make their remonstrances against the English Government the vehicle of puffing their own resources and touting for fresh customers.' The negro in the Bahamas is not so favourably spoken of as the negro in Jamaica.

* "The Past, the Present, and the Future," p. 364. By H. G. Carey.

The negro creole in the Bahamas is not devoid of ambition, but lacks persistent will and energy, both physical and mental. He is happier with his hominy and plot of ground than he would be if assured of a handsome independence on the condition of eight or ten years' hard work. He is a grumbler and a gossip. Such are the descendants of the ancient slaves; but the case is very different with those fresh from Africa and just rescued from Spanish slave ships. These are generally useful and energetic, and they perform the rougher work of the colony. The mulatto and his varied species are the best of this race; they have pride, ambition, and energy, and, when educated, are capable of the success to which they aspire. Such are the distinctions pointed out by Governor Bayley. There is little industry in the Bahamas group. The islands of Eleuthera and St. Salvador raise fruit for the English and American markets, but in the whole colony the culture of corn is trifling, and that of cotton is wholly neglected, while the Nassau market is supplied with meat from the southern districts of the United States. It is recommended that steam navigation be established between New Providence and the out islands.

"TURK'S ISLANDS.—These are an appendage to the government of Jamaica. The chief source of revenue is derived from the salinas, an export duty on salt being levied of one farthing per bushel of 85 imperial quarts. The population is only 8,250 souls, and with that fact we may dismiss this little group.

"TRINIDAD.—Taking an average of three years, the customs and tonnage duties figure for about 74,000*l.*, and the local revenues, which are the receipts of the ward unions, average 25,000*l.* Lord Harris divided the island into wards, for which he is highly praised. The expenditure on the fixed establishments of the island is put down at about 53,000*l.*; but the unfixed and contingent charges are very large in proportion, those for 1859 exceeding 120,000*l.* The value of the imports in 1859, was 780,000*l.*, and of the exports, 820,000*l.* As cotton now occupies the manufacturing mind, we may state that in the year 1859 Trinidad exported 295 bales. The financial balance sheet last forwarded shows the estimated revenue of the island at 176,000*l.*, and the expenditure at 180,000*l.*, but this excess is increased by some local items which we need not enumerate; it is sufficient to state that the Governor proposes to make good the deficiency by an income tax of 5*d.* in the pound on all incomes of 100*l.* and upwards, and he expects it will yield 8,000*l.* a year. Thus this bad fiscal principle, which all parties agree cannot be made practically equitable, is about to travel to the West Indies. The most interesting part of this report refers to *immigration*. It is known that most of the colonies must have perished, or returned to a state of weeds and jungle, had not labourers been procured from India and China after the Negro Emancipation Act had been passed. In 1858 the Indian population in Trinidad was 8,854; in 1859, it was 13,544, but this was not entirely due to fresh arrivals, but was partly attributable to the registration of many adults omitted in the former census, and principally to a more particular registration of

children. In 1859 there were in the island 8,868 immigrants whose term of industrial residence had expired, and are at liberty to work or not; but of these 1,360 renewed contracts with their employers, at a premium of from 2*l.* to 4*l.* per annum. This is a satisfactory proof that they have been well treated, and are content with their bargain. Of the 3,868 who have thus terminated their industrial residence, all are entitled to return passages, except 750 who arrived since January, 1854, who are consequently under a contract of residence for ten years, of which one-half must be passed under written agreement and one-half not. This leaves 3,118 entitled *at present* to return passages. Of these 210 registered themselves as wishful to proceed to India, but before the period of their departure arrived the great majority changed their minds and entered into fresh contracts, so that out of the total number only 35 resolved to quit, and most of these had acquired comparative affluence in trade. These are highly gratifying facts, and silence the libels of those who have compared the immigration system to slavery in disguise. The Bengalee coolies are preferred to those from Madras on account of their superior docility; and the latter are said to be intemperate, idle, and desponding. In Trinidad there are orphan homes and training schools for Indian immigrants, and there is a well-balanced proportion between the children of both sexes, which augurs favourably for their social future.

“**BRITISH GUIANA.**—The revenue for the year 1829 was 275,618*l.*, and the expenditure 263,194*l.* The import duties are said to show an improvement of 24,000*l.*, but the total amount is not stated. The debt of the colony was 449,802*l.*, of which 320,000*l.* was due to Her Majesty's Government. The military defences of the port, abandoned for want of means in 1854, have been resumed. The batteries are nearly complete, and are deemed effective against privateers. This is all of general interest that can be gathered from the report of Governor Wodehouse, which is very scanty; nor is there a single appendix.

“**BARBADOS.**—The revenue for the year 1859 was 87,000*l.*; the expenditure 80,000*l.*; but on the four years ending with 1859 there was a surplus to the treasury of 32,000*l.* During the last four years the debt of the colony has been extinguished, for though there remains an outstanding claim of 290*l.*, it cannot be called in. The imports for the year 1859 were 1,049,000; the exports 1,225,000*l.* Barbados supplies *foreign manure* to the neighbouring British colonies and partially to the French. This inter-colonial trade in guano averages in value about 45,000*l.* per annum. Governor Hincks, formerly Prime Minister of Canada, describes the condition of the island as prosperous.

“**GRENADA.**—The fixed revenue for the year 1859 was 13,500*l.*, raised to nearly 17,000*l.* by additions accruing from taxes levied under a local money bill. Of this total about 9,500*l.* are the proceeds of duties on imports. In consequence of the arrival of Indian labourers the duty on imported rice had risen from 297*l.* to 516*l.*,

and the abolition of tonnage duties is expected to give some stimulus to trade. The total value of imports was, in 1859, 124,000*l.*, and of exports 131,000*l.* On both sides of this account some fractional deductions are made for goods imported and subsequently exported. Within the last three years agriculture has made considerable progress, and it has been ascribed to the introduction of Indian labourers. By their industry seven large estates have been reclaimed in the last three years, these having been abandoned when the negro refused to work after his emancipation. They are now in a flourishing condition. The immigrants only number 879, but their presence and conduct are described as 'most telling on the Creole labourers.' So well contented are the labourers that they told Governor Hincks that they had no intention of returning home, but would settle in the island when their term of industrial residence had expired. This confirms the intelligence from Trinidad.

"TOBAGO.—Of this colony nothing is reported but what is strictly local. Everything is described as prosperous. In round numbers the population numbers 15,000.

"ST. VINCENT.—The information is very scanty. There is a great want of Indian immigrants. The island is highly fertile and well adapted to the sugar cane. It exports some hundred tons of pozzolani, which, mixed with two-thirds of lime, produce an excellent hydraulic mortar and cement for pavements. It is shipped at the rate of 8*s.* per ton. Here grow the bread-fruit trees most luxuriantly, as nutritious as the yam and potato. The cabbage trees are gigantic, and the palms are tall and stately. Some insect blight has killed the cocoa nuts. The bamboo cane is excellent.

"ST. LUCIA.—The population is put at 26,000, but this estimate is deemed below the actual amount. Some 1,200 Indian labourers have arrived, who do not appear to be enumerated, and many persons come to St. Lucia annually from other colonies, chiefly from Martinique. The coolies are reclaiming land thrown out of cultivation. Old Buildings are repaired, and former activity and enterprise are being renewed.

"ANTIGUA.—The revenue for the year 1859 was 40,000*l.*; the expenditure, 39,000*l.* There is a public debt due to Her Majesty's Treasury of 40,000*l.* The last census of the population, taken in 1856, gave 35,403 souls. Five-seventh of the population have ceased to reside on estates, but live in towns or villages. The average number of inmates to each dwelling in the towns and villages is nearly five and a-half; on the estates, scarcely three and a-half. Morality seems to have been almost exiled from Antigua. Out of 4,134 births registered in three years, 2,201 were illegitimate. This proof of vice, it is said, would be strengthened if the number of abortions and premature births could be ascertained. Here children are deemed an encumbrance to the mother; they are badly nursed, and badly fed, and are deprived of proper medical attendance. These are among the causes of declining population. Under slavery these

evils did not occur; the planter provided the slave with everything needful. The imports of 1859 were 203,000*l.*; the exports, 289,000*l.* In the same year the exports of sugar were 13,706 hogsheads; of molasses, 675,000 gallons; of rum, 112,120 gallons. Formerly, in 1834, Antigua produced nearly 21,000 hogsheads of sugar; of late years it has rarely made 16,000. The soil is rich; the seasons very uncertain. Much land is still uncultured. However, the condition and prospects of the colony are considered by Governor Eyre as unsatisfactory. What is chiefly wanted is a large influx of the industrious coolies.

“**MONTSERRAT, ST. KITT’S, NEVIS, DOMINICA, THE VIRGIN ISLANDS.**—These are all under the Governor of Antigua, and with it constitutes the group known as the Leeward Islands, as Barbados, Grenada, Tobago, St. Vincent, and St. Lucia constitute the group known as the Windward Islands. Of the first four in the list of Leeward Islands no information of any European interest is conveyed in the report, and not much of the last, or Virgin Islands. Of these the most valuable product is copper, obtained from the mines of Virgin Gorda. The general exports go to the Danish islands of St. Thomas and St. Croix, which are only valued at 11,000*l.*; to British North American and West Indian colonies, 460*l.*; to the United Kingdom, *nil*. The exports referred to are horned cattle, horses, firewood, charcoal, and building lime; and if we notice such trifles it is because we wish to give a complete statement of what is scarcely known. The copper mine at Gorda was worked in 1839, and closed in 1842 for want of capital. In 1842 the copper raised from these mines, and sold at Swansea, yielded nearly 18 per cent. of marketable metal, and realised a price of 16*l.* 1*s.* 6*d.* per ton. The works are resumed under favourable auspices, and the returns are said to be rich and abundant.

“**MAURITIUS.**—This island is the most productive of the sugar colonies of the British Crown. In 1859 the revenue amounted to 597,000*l.* in respect of receipts within the colony alone, and was augmented by 12,000*l.* received by agents in London for dividends and profits on investments. In the same year the expenditure was 553,000*l.* The remittances to India on account of coolie immigration were 53,000*l.* There are paper-currency notes in circulation which exceed 200,000*l.* in amount. These are covered by cash in the Commercial and Oriental Banks, and by Consols which stand in the name of the commissioners of the currency. The savings’ bank flourishes, and its utility is more appreciated as its operations are known. About one-third of the depositors are Indian coolies, who there hoard up the earnings which they take home when their term of industrial residence has expired. In 1858 these depositors drew 10,151*l.*, on their departure for India—a gratifying fact in a double sense, as it shows their wages to be liberal, and that they are a thrifty race. There can be no doubt of the readiness of the Hindoos to work the soil of Mauritius when they can realise such large emoluments, and it is clear that if the natives were proportionately remunerated in their own country the charge of laziness so unjustly

preferred against them would disappear. Their employers will not invest capital unless they have the certainty of high profits: and why should it be expected that labourers will work for them unless they receive high wages? In 1859 the sugar crop exceeded 115,000 tons, chiefly sold in English, French, and Australian markets. The total value of goods imported was 2,025,890*l.*, and of specie 414,931*l.* Total value of goods exported, 2,544,000*l.*; and of specie, 14,906*l.* The declared value of sugar exported, the produce of the colony, was 2,346,427*l.* The tonnage of vessels entered inwards was 304,616, outwards 308,642.

The general population of the island is computed at	96,526
Immigrant Indian population	201,979
Alien population, chiefly Chinese	6,541
	<hr/>
	305,046
	<hr/>

The population in 1859 was one-third larger than in 1851, when the census was taken. At Seychelles and the other dependencies of Mauritius there are 8,001 souls. This great increase is due to arrival of the coolies, whose contract term of residence is five years; and, as already stated, the treatment they receive and the wages they earn, ensure a continuous supply of Indian labour."

FACTS and OBSERVATIONS on WAGES and PRICES in ENGLAND during the SIXTEENTH and SEVENTEENTH CENTURIES, and more particularly during the Thirty-Nine Years 1582-1620; the DATA principally employed being the FABRIC ROLLS of YORK MINSTER and the SHUTTLEWORTH Household Books. By the REV. JAMES E. T. ROGERS, M.A. (Oxford), Tooke Professor of Economic Science and Statistics in King's College, London.

[Read before Section (F), at Manchester, 3rd September, 1861.]

AMONG the suggestions made at the last meeting of the International Statistical Congress in London, in 1860, it was proposed that, against the next meeting of that body, data should be prepared for the purpose, as far as possible, of establishing a history of prices during certain epochs in the earlier period of modern European history. Some information is already before us in English literature in the laborious and conscientious works of Macpherson and Eden, but they who have had occasion to consult these works will have found the statements of prices they contain scanty, fragmentary, and plainly in many cases of very questionable value. In fact, the purpose of neither of these writers was, strictly speaking, a history of prices. Macpherson, in recasting and continuing the earlier work of Anderson, was chiefly concerned with the rise and progress of international trade, while the bulk of Sir Frederic Eden's work is occupied with an account of the state of the poor in his own times, and in information on the deplorable state in which they were placed at the close of the last century.

Hitherto the facts alleged on prices during the period between 1200-1700 have been in the main gathered from contemporaneous pamphlets or from monastic chronicles. Such documents would naturally mention only exceptional prices, denote extreme values in seasons of singular scarcity and singular plenty, and are, I conceive, useless in history except as illustrating the fluctuations which might have prevailed in times when communication was difficult—though not so difficult as is ordinarily supposed—and when Government, by certain well-known pernicious regulations was making an artificial plenty at one time and an artificial scarcity at another.

But there are abundant materials for the construction of a history of prices during the whole or the greater part of the five hundred years which I have indicated, and these of a most trustworthy description, since they designate prices actually paid for commodities. So abundant, indeed, are these materials during a long period of

English history, that I make no doubt values could be determined for hundreds of years with an accuracy almost as exact as that which is exhibited in the tabulated returns of the late Mr. Tooke and of Mr. Newmarch, and the social history involved in these variations of prices almost as minutely elaborated. And it is important to remember, that prices in the documents to which I refer are not nominal, but represent *bond fide* transactions.

These documents are the bursar's* books of monasteries and colleges, previous to the dissolution in the first case, and continuously from their foundation to the beginning of the eighteenth century at the least, in the latter. It is to be understood that the records of expenditure in monastic establishments are vast and of the most varied kind. The inmates of these establishments were purchasers and consumers, not rarely producers, on the largest scale. Their heads and rulers ranked and accompanied with princes and nobles; their inferior members lived on the fare of peasants and day-labourers, and were, indeed, ordinarily of that condition by birth. A similar life in common was the characteristic of the colleges and of some capitular bodies, though on a very inferior scale, and these supply information of a more or less detailed kind on the same subject.

For instance, the purchases of wine for the use of Durham Monastery in one year (1582-3) amount to 20 hhds.; of wheat, 805 qrs. 3 bshls.; of malt, 169 qrs. 2 bshls.; of iron, 58 cwt. 3 qrs.; of cattle, 291; sheep, 959; lambs, 159; salt white herrings, 10½ barrels; of sugar, 53 lbs.; of raisins, 11 doz. and 8; of currants, 12 doz. and 3, &c. The price of all these articles is stated as it varies, and in some cases, as in that of cattle, the cost of each head, with exact minuteness. I quote these instances to show how large is the field for economical induction. And records of a similar character are preserved by hundreds in public record offices and the muniment rooms of capitular bodies.

Some few of these account books have been published. The Surtees Society established in the University of Dublin, and the Cheetham Society in this city, have edited some exceedingly valuable memorials of this kind, a few of which have supplied me with much

* The bursar of the monastery was the chief officer of accounts. Each inferior officer to whom the public funds of the establishment were entrusted, rendered an exact account of his charge to the bursar, who entered either in detail or summarily, the balance of such officer's receipts and expenditure for the rolls of the year. A similar method existed in the great or pipe roll of the Exchequer. At present the bursar of colleges in Oxford, and probably in Cambridge, performs analogous functions. The office was held in rotation, or by appointment for short periods, and in ancient times was endowed with a moderate fee. The bursar's account, *in extenso*, of the year 1582-3, Durham Monastery, occupies 100 pages of one of the Surtees Society's publications.

of the materials of this paper.* And here I cannot help acknowledging my gratitude; a feeling which I am sure will be shared by all who have made use, or who may make use, of these publications, to the disinterested labours of the learned gentlemen who have undertaken the task of editing these documents; and expressing my admiration at the accuracy and convenience of the text and the indices. I can only hope that they will continue their labours in the same direction, assuring them that the aid they afford to the student of history, in that portion of it at least which has been most neglected—the social and economical condition of our forefathers—is large and invaluable. And I feel convinced that these gentlemen who have given such attention as the editors of these works have given to documents bearing on prices during the period I have designated, will agree with me that the history of this country cannot be perfect, or even accurate, till these economical facts have had a full attention given them.

After the Reformation, the materials for a determination of prices become far less copious. Some information is still to be procured from the expenditure of capitular bodies and collegiate establishments, though these corporations had far less funds to expend, and much less inclination to expend them, on works, than before the downfall of the monastic bodies. Further, the expenditure is generally scanty as it is, on repairs of buildings already constructed, and therefore less distinctive and exact. The common life of the monastery ceases or is feebly represented in academical bodies, and with the cessation of this life there ceases also information in great degree of large purchases in gross for the purpose of common consumption.

Still a considerable amount of valuable material is to be found in the account books of the domestic expenditure in noble and wealthy families. Some of these have long been before the world. Fleetwood collected prices with a view to determine that the fellow of a college could conscientiously hold his fellowship, though he might possess the exact sum in private income, which, according to the statutes of his college determined the vacation of his emolument. Bloomfield collected facts in his laborious history of Norfolk. So we have the Northumberland household book, 1508-1518, edited by Bishop Percy; books containing an account of the expenditure of the Earls of Derby and of Lord Chief Justice Coke. To these must be added the most copious, continuous, and important of all these records—the Shuttleworth accounts—published by the Cheetham Society. I have hopes that the value which attaches to such a publication as that of the Shuttleworth accounts will induce the owners of such relics to put

* Cheetham Society, vols. xxv, xli, xliii, xlvi; Surtees Society, vol. xviii.

them into the hands of editors as learned and diligent as Messrs. Raine and Harland.

The period which I have selected for comparison and examination in the collection of prices is generally understood to be immediately consequent on that great and permanent change in the value of the silver, which had its cause in the influx of that metal from America. In my opinion, however, the decline in the value of silver was much more gradual than has been imagined; and I shall be disposed to assign the permanent rise in the price of commodities to several distinct periods, one of the latest of these having been at about the accession of Charles I, a few years after the point at which my period closes.

In order that we may estimate the extent of the change, I shall lay before the Section an account of prices in the four years 1530-3, premising that there is at this time no permanent change traceable between values at that date and those which prevailed at sixty or eighty years before. The effect of the American discoveries was not discerned for fifty years or more after the voyage of Columbus.

It is not easy to determine what should be taken as a measure of value in the period before me. The rule of deciding the relative prosperity or depression of particular years or quantities of time by the price of corn, and which was imported into the legislature by the Act of Elizabeth, which reserved a portion of rents, on lease granted by corporations, in the shape of corn, has had the sanction of Adam Smith; and inferences from the market value of corn have been drawn for the purpose of instituting a contrast between the condition of agricultural and mechanical labour at different periods of economical history. At present, and indeed for the last century, such an estimate is perhaps just; but in ancient times, not only was labour far less divided, but it is plain from contemporary records that almost all labourers were producers as well as purchasers of agricultural commodities. The shepherd often had his own small farm and grass-run; the carter often owned horses and carriages; and the carpenter and mason often dealt in the produce which they worked. Such an economical state *should* naturally have created a high price of labour as compared with those of the necessities and conveniences of life, by making his occupation optional with the seller.

Again, calculations on the price of corn in relation to that of labour are disturbed by the uncertainty as to what constituted the habitual food of the people. If, as now, the labouring classes lived generally on wheaten bread, changes in the price of wheat would be a complete index to the condition of this part of the community when compared with the price of labour, provided also that labour were the sole means of subsistence. But the ostensible means of life

were not as I have indicated—the only source of income,—nor is one grain, or grain at all, the only object of expenditure. Bye, which has now, I believe, almost disappeared from the list of grains used as food in England, was cultivated largely for that purpose during the times to which I refer; and barley and oats were consumed by man to a far larger extent than at present. Still, though one cannot at present determine the ratio between the price of food and that of labour with the same positive accuracy as at present, one can draw tolerably exact inferences.

Among the valuable suggestions supplied by our President (Mr. Newmarch), in the scheme read before the International Congress in 1860,* on the Methods of Investigation as regards Prices and Wages, certain cautions are insisted on, and with great justice, as necessarily to be before the eyes of those who investigate such a subject as that which is before us. I will advert to a few of these.

I. It is not always easy to distinguish the *time of year* at which purchases are made. In the case of corn, the natural time was that no doubt in which most was bought, *i. e.*, shortly after the harvest. But it is plain that the practice was for each family to store up the whole or the greater part of the amount necessary for the year's consumption; and in the case of those corporations to which I have already adverted, to buy at a generally uniform price. The monasteries, however, performed to some extent the function of dealers. They sold as well as bought, and this to a considerable extent. Hence, they must have prevented, in great degree, that abrupt transition from high to low prices which we have heard was the worst incident of those times in which the intermediate dealer was unknown, or if known, visited with severe penalties as a forestaller or regrator.

II. The supply and the prices of *meat* were regulated by the seasons. Calves and lambs generally disappear by midsummer, where entries are dated, and stock is purchased and killed in large quantities and at moderate rates by autumn for salted winter provisions. The live stock was reduced to the largest quantity that could be well maintained on the summer store of hay. The meat must, however, have been lean and coarse, for the price of suet is fully four times that of meat.

III. The *weights and measures* used in England appear to have been tolerably uniform, or at least the difference between local weights and those in general use to have been known. Of all traditions those, I imagine, on weights and measures are most lasting,

* "On Methods of Observation as regards Statistics of Prices and Wages in "the Principal Trades, being the Programme of Section IV of the International "Statistical Congress, 1860," by Wm. Newmarch—reprinted in the *Statistical Journal*, vol. xxiii, December, 1860.

though there is an awkward ambiguity about the quantity implied in a bushel. They have not been eradicated in France, after the establishment of a scientific system for the last seventy years; and the advocates of a decimal method are well aware that the practical difficulties which beset this scheme are chiefly derived from the vitality of prejudices in favour of traditional quantities.

IV. During the period between 1580-1601, the *nominal price* of 1*l.* corresponds to 1'0881, 1*l.* -s. 8*d.* After that period the nominal and sterling price are identical. But in the accounts which I shall compare with this period the difference is more marked. In 1531, the nominal price of 1*l.* corresponds to 1'3781, 1*l.* 7*s.* 6½*d.* of our money, while a century before the same amount equals 1'9375, 1*l.* 18*s.* 9*d.* The memorable debasement effected during the reign of Henry VIII and his two successors extended only over eight years, and does not affect these accounts.

V. Engagements for *agricultural*, and indeed *mechanical* labour, were generally made by the year.* Sometimes the mechanic received a fixed stipend, with pay for work in addition. Occasionally for the rarer kinds of labour or skill a yearly contract was made for the supply of services not of a continuous but recurring kind, *e.g.*, the shoeing of horses, cleansing of armour. At the same time piece-work is common, particularly, as might be expected, for labour in harvest, for spinning, weaving, and rope-making. So in masonry the workman is paid by the rod. In smith's work by the stone of raw material served out to him.

VI. The labourer was frequently *boarded* as well as *lodged*. All the schemes of labour-prices fixed by Act of Parliament up to 5th Elizabeth (1562), and the tariffs issued by the justices in the several counties afterwards give double prices, designating in the one column the price without, in the other, that with food. It was customary, too, in larger establishments at least, to give livery, or a sum of money in lieu of livery. Household, and even other servants, received annual donations not included in the contract. Wherever in the later accounts it is not specified that the labourer boarded himself, I conclude that he is boarded at the expense of the employer.

VII. The *hours of labour* were, from March to September, from nine and a-half to eleven and a-half hours; and between September and March, from sunrise to sunset; two hours being deducted for meals. (5th Elizabeth.)—I have found no trace, indeed, of any

* The author is prepared with other information as to prices by *day* which are extracted from the accounts of the Clerks of the Works in the reigns of Henry VIII and Elizabeth, and also with those of the Ordnance in the reign of the latter sovereign. Certain peculiar circumstances connected with these accounts make the introduction of them into the present paper impracticable. The author hopes to call attention to this fund of information hereafter.

limitation of the hours of labour in any private contract; but we may conclude, I imagine, with tolerable certainty, that the provisions contained in the statute of Elizabeth represent what was the ordinary custom, and though apparently penal on the labourer, would, in the event of any dispute between employer and labourer be applied to ordinarily by the latter.

VIII. *Direct contributions* to the State for purposes of taxation appear to have been small in the period between 1580-1620. All the income derived by the Queen from direct taxation amounted on an average to 66,000*l.* per annum. But the revenue from grants for monopolies and from feudal customs was heavy and oppressive in its incidence though not perhaps lucrative.

IX. *Tolls* were not heavy apparently, levied only on certain commodities sold in fairs or open market, always paid by the purchasers, and therefore probably included in the price.

Mr. Newmarch has suggested that it may be possible to give a rough estimate during the earlier period of economical history of the prices of the leading kinds of grain, and of the wages of common agricultural labour, but despairs of any positive conclusions other than of a scanty information and irregular inferences about eight other heads. These are—The price of land of different kinds. Rent of land and interest of money lent on ample mortgage. Rent of houses and cottages. Prices of houses, cattle, sheep, poultry. Butcher's meat and other provisions. Clothes and furniture. Artisan and skilled labour. Cost and time of conveyance. And he observes that "the diversity of circumstances affecting the money value, from time to time, of all the objects comprised under these last eight heads is so great, that it would be futile to attempt any classification of them." I have reason to believe that there is, as I have already suggested, far larger and more perfect evidence on some of these subjects than my learned friend imagines. To this subject I hope to recur hereafter.

Of the *price of land* I get no trustworthy information. Nor do I think it possible to procure it. As has been often observed, the integer of value is commonly a quantity from which a generally similar amount of produce is derived; not a definite superficial quantity. For similar reasons the rent of land cannot be exactly ascertained, unless perhaps, where the land is unimproved,—as natural water meadow. Nor, again, can one gather much as to the rent of houses and cottages; as there is none, or little information, about their comparative accommodation. Something, moreover, may be learnt as to the rent of industrial premises, though these were often rents of assize, or else rents for long terms, commenced by a fine. I have, however, found rents of flour-mills let from year to year, and in

which there is a rise in price from 2*l.* 3*s.* to 9*l.*; the rise during about one hundred and seventy years being gradual.

But of the *prices of horses, sheep, cattle, and poultry*, there is plentiful information. Scanty accounts of the *price of butcher's meat*, though suggestive notices as to its *quality*. Many facts as to the *price of clothing*, and accurate information on the market value of *skilled labour*. There are insulated facts, too, of considerable distinctiveness on the *cost of carriage** over given distances, though these are to be extracted from a mass of notices in which one cannot arrive at a conclusion, because we do not learn what was the weight carried. The *rate of interest* is known with tolerable accuracy after the Reformation, when it was in some degree legalized, the maximum price allowed for money representing, I conceive, the full market rate for ample security.

The following are the heads to which I have referred the result of such researches as I have been able to make:—

- | | |
|--|---|
| I.—Corn, including wheat, rye, malt, barley, oats, peas, beans, and occasionally hemp and linseed. | XI.—Spices and groceries of foreign produce. |
| II.—Meat and suet. | XII.—Lead, iron, tin, glaziers' and plumbers' labour. |
| III.—Cattle and horses. | XIII.—Agricultural labour, day and piece. |
| IV.—Sheep, lambs, wool. | XIV.—Carpenters' and Masons' labour; wood, sawn or split; hewn stone. |
| V.—Pigs. | XV.—Household servants' wages. |
| VI.—Poultry, game, eggs. | XVI.—Smiths' and Weavers' labour; nails; ropes, sackcloth, &c. |
| VII.—Butter, soap, candles, honey, oil, wax. | XVII.—Coals, lime, salt. |
| VIII.—Fish. | XVIII.—Sundries. |
| IX.—Wine, vinegar, beer. | |
| X.—Clothing, flax, hemp. | |

The last heading is, I fear, inevitable, but it contains the prices of many articles constantly recurring, but not in such variety as to justify a separate head. On all, except the second of these heads, I hope to furnish some information in the period 1531-4, and on some in earlier times; while I think I may be able to direct the attention of the Section to the increase of price on each of these items of account during the years 1582-1620. To illustrate my position that prices had not varied for some centuries before 1530-33, I will give some facts of an earlier year, which is of no exceptional character.

The 1*l.* in the accounts represents 1*l.* 18*s.* 9*d.* of our money.

The year is 1418.

* Further researches enable me to state that the cost of land carriage was 4*d.* per ton per mile at the commencement of the date before us.

- I.—Wheat, 6s.; barley, 8s. 4d.; oats, 1s. 8d.; peas, 2s.
- III.—Oxen, 15s., 12s. 2½d.; horses, 10s., but the price of horses varies from 6l. downwards, and did till a commercial treaty with Spain introduced a good herd into England.
- VII.—Wax, lb., 6d.
- X.—Hemp, stone, 10d.
- XII.—Lead, fother, 4l. 13s. 5d.; tin, cwt., 1l. 8s.; iron, ton, 6l.; Plumbers' work, week, 2s.; Glaziers', 2s. 6d.; glass, seam (white 1l.) i.e. 120 lbs.
- XIII.—Unskilled labour, the use of a man, waggon, and horse, per day, 1s.
- XIV.—Quarryman, year, 4l. 13s. 4d.; Carpenters' work, wainscots, 1l. 6s. 8d., 1l. 8s. per 100; thatch boards, 3s. 4d., 5s. per 100; thatch tiles, 1,000, 9s.; wall tiles, 1,000, 5s.
- XVI.—Nails, per 1,000, double spiking, 3s. 5d.; middle do., 2s. 7d.; shingle nails, 1s. 4d.; rope maker, per stone, 3d.
- XVII.—Coal, chaldron, with carriage, 5s. 8d.; hazlewood faggots, 1,000, 1l. 6s.; salt, quinter, 5s. 6d.
- XVIII.—Carriage of 877 stone of lead from Boroughbridge to York, 4s. 10d.; land carriage 237 ton stone from Huddlestone to Cawood, 1l. 10s. 10d.; water do., Cawood to St. Leonard's Pier, York, 6l. 15s.; land do., Pier to Church, 2l. 14s.

The prices of corn and food are extracted from the annual accounts of Finchall Priory, those of artizan labour from the Fabric Rolls of York Minster.

Allow me to put before you prices from another year, 1482, which is a dear one, as the prices of the year 1418 are cheap.

- I.—Wheat, 10s. 8d.; barley, 6s. 9½d.; oats, 2s. 6d.; peas, 8s.; beans, 8s.
- IV.—Wool, stone, 2s. 6d., 2s.
- VII.—Soap, barrel, 1l. 6s. 8d., 120 lbs.; oil, barrel, 5s. 7d.
- XII.—Iron, ton, 4l. 5s.; 5l. 6s. 8d.; lead, fother, 6l. 10s.; Plumber, week, 3s. ½d.; do., do., 2s. 6d., 1s. 10d.
- XIII.—Faggot making, ton, 8d.
- XIV.—Carpenter, week, 3s.; Carver, week, 3s.; quarrying, waggon load, 5d.; wainscots, 100, 2l. 5s.; thatch boards, 100, 3s. 9d.; laths, 1,000, 10s.; tiles, 1,000, 5s.
- XVI.—Hair cloth, ell, 4d.; sackcloth, ell, 2½d.
- XVII.—Lime, ton, with carriage, 2s.

I have mentioned these prices to compare them with 1530-3.

The currency is depreciated now from 1l. 11s. to 1l. 7s. 6½d., 1l. 3s. 1d. per cent.

In the second Appendix (B) I have collected and classified a large number of Prices for the years 1530-34, under the eighteen leading heads just enumerated.

We have in these prices (Table B), and they might be multiplied, an account of sums actually paid, on a large scale of transactions. They are chiefly from the Durham Household Book, and the Fabric Rolls of York Minster. It is, I may observe, of the highest importance to remember, that these are sums *actually paid*. Notices as hitherto given of prices in this period, are often exemplary of high and low prices at anomalous times, and in various localities, if indeed, as I suspect, they are not nearly imaginary. But these are

the transactions of large buyers, and often of large sellers: for the sales of commodities—chiefly prime necessities of life—by these corporations are frequent and striking.

The inferences I gather from these accounts (B) are—

1st. That between the years 1300 to 1582, on making due allowance for the depreciation of the currency, there is no traceable mutation in the value of silver, *i.e.*, the symbol of exchange. Periods of extraordinary prices of labour can be accounted for on historical grounds. These, though very interesting, and viewed in relation to prices remarkably illustrative of some of the darkest and most important phases of the Economical History of England, are not, I feel, so far within the objects of the Association as to justify my propounding them for discussion.

2nd. That the English market was supplied with commodities of home and foreign produce, in quantities sufficiently large as to designate a regular demand, and an organized system of supply.

3rd. That although there may have been considerable fluctuations in the market price of the prime necessities of life, the record of actual purchases does not warrant us in imagining that the variation was at all so excessive, as the notices of chroniclers have induced historians to believe.

4th. That in proportion to the price of the necessities of life, Labour was more highly paid at the beginning of the fifteenth (say 1400-1420), than in the first third (1400-1583) of the sixteenth century.

5th. That the low price of certain foreign commodities, *e.g.*, *wine*, *Spanish iron*, is an argument that transit by water was comparatively cheap and virtually safe. This inference is here supported by, all things considered, the low rates charged on the carriage of goods by water over known distances.

6th. The comparative prices of certain articles in constant demand and regular supply, *e.g.*, lead and iron, may be taken to illustrate the comparative skill of the workmen employed to reduce these metals from their ores.

7th. The statutes of labourers were, as their framers constantly complained, nugatory, the record of prices paid exceeding greatly the sums allowed by Parliament to husbandry and handicraft.

8th. Of all kinds of provisions, the highest price was paid for fish. So far was it from being the case (as is commonly imagined), that our ancestors, of all degree, had a plentiful supply of these articles of food; the article of fish is a serious item in the accounts of a household, though our forefathers were no way particular in their choice for table. The price of fish was largely enhanced in Lent.

Thirty years after the date of the accounts from which I have

extracts, the statutes of labourers were consolidated by the act of 5 Elizabeth, 1562. The preamble of this Act acknowledges the change which had occurred in the value of the necessities of life, and while it enacts provisions as stringent as the olden statutes of Edward III and Richard II did, it allows that price at which labour had been set before, was "a grief and burden to the poor hired man."* The scale of prices to which I call the attention of the Section, will, I think, afford evidence of the hardship in question, though I confess to finding the cause of these hardships in other reasons than the provisions of an Act, which, it is confessed, was habitually broken. The information we have dates twenty years after the fifth Elizabeth and fifty from the date of the Durham accounts, when, as I have argued, the American discoveries had as yet produced no effect on the value of the currency.

The greater part of the information I possess on prices between 1582-1621, is derived from the accounts of the Shuttleworth family. Three persons successively held the estates of the family during this period. The first is a lawyer, and was judge of the county of Cheshire. The second is a clergyman, and held a living in Warwickshire. The third is a soldier. Some traits in the character of each, are discernible in the accounts. The lawyer lends and saves money; the clergyman spends money, for he builds what is now the family mansion; and the soldier borrows and spends. As was usual in those days, the country gentleman farmed and traded in farm produce. Unfortunately, the years 1607, part of 1608, 1610, 1615, are deficient in these accounts. During a year, 1608-9, the family is in London, and we have London prices. Next to these are Lloyd's Oxford prices; Eden's price list has supplied a few data; notices are gleaned from the York rolls—though these are scanty; Robert's southern counties, and Lord Wharton's household expenditure have been of service; so the household book of Lord Chief Justice Coke, as far as it exists in Eden's table.

The measure of corn used in the Shuttleworth accounts is called mett; this is ordinarily understood to be a bushel. I am informed, in the valuable index to this publication, that it is a word still in use,

* If I could be sure that the sums declared as paid by the Crown, in several accounts of work done for the Crown, were *bonâ fide* records of what was paid to the workmen, and that no percentage was deducted *in transitu*, I should think that the Crown paid far more highly than other people and than public enactments determined. Furthermore, that the practice of purveyance was a Parliamentary fiction, and applicable only to cases in which people could make themselves heard, and that the popularity of the Tudors was due, in some degree, to their having paid good wages—*mutatis mutandis*—for labour. But there are grave difficulties in the way of these inferences. The most trustworthy accounts that I have seen are *primâ facie*, those marked in the Bodleian, by the title Rawlinson, A 195. But I can do no more than advert to these accounts at present.

but that its use is occasionally vague, or at least uncertain. But the ambiguity in the term is less important, as Mr. Lloyd's * prices of corn extend over nearly the whole time which I am commenting on, and these prices are not only records of actual transactions in the Oxford market, but closely agree with the Eton prices, a locality sufficiently distant to be independent authority.

I have then continuous prices of wheat from 1582 to 1620 inclusive.

1. The *highest price* during the period, for the quarter of *eight bushels*, is that of Lady-day, 1597, when wheat reached 64s. in the Oxford market. Eden has a price of 100s. for the same year; and Mr. Roberts,† whose records are from the west, one of 120s.; on the other hand the *lowest price* is 11s. 10d. at Oxford, in 1588.

1594, 1596, 1598, 1608, 1614, 1617, were also *dear* years.

1583, 1584, 1591, 1593, 1602, were *cheap* years.

The *lowest price* in the seventeenth century, 1601-20, is in 1603, 23s. 1d.

2. Very little reliance can be placed on the quotations made, of prices of *rye*. The same may be said of *barley*.

3. The lowest price of *malt*, is in 1588, 9s. 5d.; the highest, in 1597, 37s. 8d. The *lowest price* during the years 1601-20, is in 1604, 11s. 11d.

4. The prices of *oats*, *peas*, and *beans*, are somewhat uncertain.

5. *Hops* range between 4d. and 11½d. The tables contain twenty-two prices. *Hempseed* varies between 16s. and 56s. *Linseed* between 26s. 8d., and 50s. 8d.

6. *Meat* and *Cattle* rise steadily.

7. *Wool* fluctuates considerably, from 4s. to 13s. 4d. a stone. The highest prices are in 1595 and 1597.

8. Comparatively speaking, there is little variation in the price of *poultry*. The difficulty of determining the time at which eggs are bought, makes an estimate uncertain, but the rise in these articles is considerable.

9. The higher-priced *soap* is scented or sweet.

10. A decided rise is observable in the price of *butter*.

11. *Tallow* and *candles* suffer no marked change in the period.

12. There is too little information about *oil* to enable one to draw any inference. The lower prices are of coarse kinds.

13. *Honey* more than doubles in price.

14. In *fish*, *herrings* present no remarkable variations except in the dear years. *Salmon* is very high-priced in comparison with other provisions. The high-priced salt fish, is *ling*; the low, *codlings*.

15. The price of *wine* is low, particularly that of French wine.

* "Prices of Corn in Oxford," by Rev. W. F. Lloyd, 1830.

† Roberts's "Social History of the Southern Counties," p. 197.

All the prices designated are of small quantities. I have not thought it necessary to reduce hogsheads and tuns; the tun occurs but rarely in the accounts to which I have had access.

16. *Vinegar* is, I conclude, wine vinegar.

17. Except in connexion with the price of *malt*, that of *ale* and *beer* is not particularly suggestive.

18. *Flax* and *hemp* are, as far as the accounts guide us, comparatively dear, even at the lowest modern prices; at the highest they are excessively so.

19. *Lead* varies in the prices assigned to it, between 11*l.* 4*s.* - $\frac{1}{4}$ *d.* and 7*l.* 17*s.* the fother of 19 $\frac{1}{4}$ cwt.

20. *Iron*, as in earlier times, is of home produce, or procured from Spain and Italy; the lowest price is 8*l.* 13*s.* 4*d.*, the highest 21*l.* 3*s.* 4*d.*; two quotations are given of steel, at 87*l.* and 27*l.* 15*s.* a ton.

21. The market value of the rarer groceries, which I have put under the general name of spices, the term by which they are known in the accounts, represents considerable fluctuations, but no sign of permanent increase; if at all, the cost is diminished.

22. In estimating the price of *labour*, it is not always easy to determine whether the payments made included the food of the labourer. There are, it is true, considerable differences in price at the same date, but separate bargains are obviously made with the separate labourers; payments by piece, however, invariably exclude the items of maintenance. I may observe that labour was procured from a distance; one entry in the Shuttleworth accounts specifies that the *haymakers* were "London people."

Ploughmen are paid from 5*d.* to 2*d.* a day, and from 1*s.* 2*d.* to 1*s.* 11*d.* the acre; *reapers* and *mowers* from 8*d.* to 10*d.* a day, and the latter 1*s.* 6*d.* to 1*s.* 8*d.* an acre; the former 2*s.* 8*d.* to 8*s.* 8*d.* an acre.

But there is no sign of any *increase* in the *price of labour*, skilled or unskilled, during this time. There is little evidence of a general remuneration correspondent to the enlarged cost of the necessaries of life before the Protectorate, when the dearth of provisions caused a re-settlement of the assize of wages, and with this re-settlement a permanent increase. The only apparent rise is in the heading, unskilled and female labour, in which an advance takes place at the end of the period.

The same facts apply equally to the labour of *artisans*.

There is a rise in the market value of *hides* and *skins*, of *tar*, used largely in dressing *sheep*, of *salt*, and some similar commodities.

The *rent of land* is represented by that of pasture or meadow; this is on the increase.

The ordinary rate of *interest* is 10 per cent.

I can now lay before the Section a table of *Comparative Prices* (Appendix A), 1580-1620, comprising 83 heads, on which it is possible to contrast with greater or less accuracy, the change in values which ensued on the American discoveries.

It must be observed that in setting the price of each article at 100, and computing the percentage of increased or decreased value, that there is an important caution which one must not lose sight of. The currency was depreciated between the years 1580-3 and 1582 onwards, by about 24 per cent. The rise in prices is, therefore, nominal, and is not really so great as appears, while the fall, when it does occur, is greater than it seems. But I have not thought it necessary to incorporate this element into the comparison; sufficient information, as to the relations between labour prices, foreign produce prices, and home prices, is contained in the comparison of nominal values; and these are sufficiently surprising. There is, the Section will observe, a prodigious rise in the price of the necessaries of life, and an extraordinary decline in the market value of labour, and especially of agricultural labour.*

By far the most interesting question, however, a partial solution to which is procurable from these accounts, is the effect of the American discoveries.

I need not remind the Section that great alarm has been expressed at the possible derangement of existing permanent relations (such as that of the annuities paid on public credit) in consequence of the discovery of great gold fields, and in the possible disturbance of a ratio between the two forms of currency, which, either separately or conjointly, represent a legal tender in modern States. At present there is, I think I may say, no evidence that any derangement, or any marked disturbance of the ratio have arisen. Hereafter they may, but the abstract reasoning on which persons have derived their inferences, has, I imagine, been incomplete, and the reference to facts, the most prominent of which is the change of values in the sixteenth century, has been, from omissions in the calculation of causes, deficient in logical precision. Without pretending to enter into the economical circumstances which may affect the future relative value of the currency, I will venture on stating what deductions must, in my opinion, be made to any argument, from prices in the sixteenth century, before we can gather them with even an approximate exactness.

* It must be observed that the prices of labour are almost entirely gathered from the Shuttleworth Accounts. But on the other hand the contrast is with the Durham Accounts; a locality near enough to suggest that no great difference of comparative values could naturally arise. Labour travelled as freely in those days as now; indeed, in the account books of Elizabeth we find that mechanics for Greenwich and the Tower are procured from places as distant as Cardiff, Dorchester, Brighton, Bristol, and Bridgwater.

The first of these was the destruction of the monasteries. As elements in the economical state of the nation, these corporations were great agricultural producers, and employed agricultural and mechanical labour very largely. Contemporary history is full of complaints of the practice of turning arable land into pasture, a practice which may indicate diminished capital, as well as a prudential change. With a population of labourers at least stationary or perhaps advancing—and the latter is the ordinary view, and a great diminution of capital, the opposite results of an increase in the price of food, and a decrease in the value of labour, would ensue.

2. The vast increase in the supply of the precious metals was peculiar and unprecedented. The conquerors of those American regions in which these metals are produced in such enormous comparative quantities, found them already smelted, refined, and available for exportation. When these resources were exhausted, there was a large population to fall back on, already familiar with mining operations, whom the Spaniards exterminated by compulsory and rigorous labour. The value of the precious metals must fall (as that of every commodity must fall), if no labour or little labour is given in exchange for them.

3. The theory which prevailed at this time on profitable trade, the terms of which remain to our own time, not only defined national prosperity to consist in a balance of exports over imports, and to provisions, in great degree nugatory, it must be allowed to prevent the efflux of specie, but consumption was actually narrowed by public acts, and by private rules. The violent attempts to raise prices, or to keep them at least stationary (which was the traditional policy of the Dutch trade), must have diminished the value of a currency, by limiting its possession to fewer hands. To refer to Adam Smith's comparison of the functions of money, it was like making a number of new roads and carefully precluding traffic from them. This interference with the expansion of trade, was, I make no doubt, the chief cause of the decline of the Dutch trading companies, and not as has been alleged, the burden of taxation. Even at present, when any idea that prices should be kept up by artificial means, is exploded, the phraseology of the markets is favourable or unfavourable to the seller, not to the consumer.

But whatever may have been the rise in the price of the conveniences and necessities of life, there is no doubt about the gravely depressed condition of the labour market. Mr. Hallam has called attention to the contrast between the price of labour in the fifteenth and in the eighteenth century, but he has not adverted to the suddenness with which these low prices were stereotyped in the sixteenth. The princes of the house of Tudor were answerable for little good and much evil. They could not have, it is true, interfered with these

causes, which must have had their effect on prices sooner or later, and which were due to a vast augmentation in the amount of specie, but their debasement of the currency (short time though it lasted), and their permanent depreciation of it, in the face of a rapid rise in the price of commodities, were acts as profligate as mischievous, and, finally, as suicidal as could be conceived.

APPENDICES.

(A.) The first of the following three Appendices is intended to be a *Summary* or *Digest* of the evidence given in greater detail in (B) and (C). I have already explained the construction of (A) at page 548 *ante* —, and it will be sufficient to point out here, that by means of the cols. of "*Ratio or Decimal Value*," easy means are provided for measuring the variations of price from the *datum* line of the prices of 1530-33. In the columns of Table (A) the first quoted prices are averages from the Durham Bursar's computus for four years, 1530-33.

The other prices are averages of decades (the first is for nine years only), from 1582 to 1620, extracted from the above-named authorities. The Corn prices are reduced from Lloyd's Oxford prices only.

(B) gives for each of the five years 1530-34, a series of prices of some extent arranged under the seventeen heads or groups set forth at page 542 *ante*.

(C) contains an account of the prices paid for certain selected articles during the years 1582-1620, and of the rates at which *labour* was actually hired. The quotations are chiefly procured, as the title to the paper indicates, from the Shuttleworth accounts, and the Fabric Rolls of York Minster; that is to say, they are accounts of prices in the *North of England*. But the prices of Corn are procured from the record of sales actually made in the *Oxford Market*. These have been registered weekly since 1582, in pursuance of an Act of Parliament of that year, the Corn rents of the Colleges being fixed for each year from an average taken between the price at Lady-day and Michaelmas. These prices are marked (L) in the table, the former being the Spring, the latter the Autumn price. For a full discussion and analysis of the evidence relating to the Prices of Corn in England since the fifteenth century, I may refer to the second Appendix in the sixth vol. of Tooke and Newmarch's "*History of Prices*," especially to pp. 347-80. The other letters are explained at the head of the Appendix.

TABLE A.

PRICES in ENGLAND, 1530-1620.—SUMMARY STATEMENT, with *Cols. indicating the Ratio of Variation as compared with Prices of 1530-33.*

Years.	Wheat. (Average.)	Ratio or Decimal Value.	Malt.	Ratio or Decimal Value.	Oxen. (Average.)	Ratio or Decimal Value.	Cows. (Average.)	Ratio or Decimal Value.
1530-1533....	£ s. d. - 5 9½	100	£ s. d. - 8 2	100	£ s. d. - 15 7	100	£ s. d. - 10 1½	100
1583-1590....	1 1 11½	378	- 13 7½	165	3 4 5	386	1 13 2½	328
'91-1600....	1 10 11	568	- 19 6	239	3 11 2½	456	—	—
1601-1610....	1 5 -½	428	- 17 11½	220	3 18 4	502	—	—
'11- '20....	1 14 9½	595	1 - 3	248	5 17 4	752	—	—

Years.	Sheep. (Average.)	Ratio or Decimal Value.	Lambs.	Ratio or Decimal Value.	Wool.	Ratio or Decimal Value.	Capons.	Ratio or Decimal Value.
1530-1533....	s. d. 1 11½	100	s. d. 1 -	100	s. d. 3 -	100	£ s. d. - 8½	100
1583-1590....	5 2	270	3 4½	333	7 -	233	- 9	109
'91-1600....	5 -	260	3 5	341	13 3	451	- 6½	84
1601-1610....	—	—	6 1	608	7 6	250	1 8	242
'11- '20....	5 11½	308	3 8	366	—	—	1 5	206

Years.	Chickens.	Ratio or Decimal Value.	Butter. (Stone.)	Ratio or Decimal Value.	Honey. (Gallon)	Ratio or Decimal Value.	Cod or Ling. (1,000.)	Ratio or Decimal Value.
1530-1533...	s. d. - -½	100	s. d. - 10½	100	s. d. 1 5½	100	£ s. d. 20 11 10½	100
1583-1590..	- 1½	190	2 10	329	2 4	160	58 2 -	282
'91-1600....	- 2½	285	3 4	367	5 1½	349	118 - -	574
1601-1610...	- 4	457	4 2½	488	5 1	348	124 10 -	610
'11- '20....	- 2½	299	3 10½	450	5 8½	381	83 - -	403

(A).—PRICES in ENGLAND, 1530-1620.—SUMMARY STATEMENT, &c.—*Contd.*

Years.	Rabbits. (Couple.)	Ratio or Decimal Value.	Herrings. (Red.) (1,000.)	Ratio or Decimal Value.	Claret. (Hhd.)	Ratio or Decimal Value.	Raisins. (lb.)	Ratio or Decimal Value.
1530-1533....	d. 4½	100	£ s. d. — 11 10	100	£ s. d. 1 13 —	100	d. 2	100
1583-1590....	6½	146	1 2 7	190	5 8 7	329	3½	18½
'91-1600....	9	211	1 8 —	236	7 2 7	332	4½	212
1601-1610....	10	235	1 4 —	202	8 8 —	509	6	300
'11- '20....	10	235	1 5 5	214	6 6 —	381	6	300

Years.	Pepper. (lb.)	Ratio or Decimal Value.	Cloves. (lb.)	Ratio or Decimal Value.	Sugar. (lb.)	Ratio or Decimal Value.	Lead. (Fother.)	Ratio or Decimal Value.
1530-1533....	s. d. 2 —	100	s. d. 8 —	100	s. d. — 7½	100	£ s. d. 2 18 6	100
1583-1590....	3 9	187	5 9	71	1 4	206	10 9 1½	357
'91-1600....	3 7	179	—	—	1 4	206	—	—
1601-1610....	3 4	166	5 4	66	1 7	245	8 9 4	288
'11- '20....	—	—	7 5	82	1 5½	222	—	—

Years.	Iron. (Ton.)	Ratio or Decimal Value.	Solder. (lb.)	Ratio or Decimal Value.	Mowing. (Day.)	Ratio or Decimal Value.	Mowing. (Acre.)	Ratio or Decimal Value.
1530-1533....	£ s. d. 6 1 —	100	d. 3	100	d. 6	100	s. d. — 6	100
1583-1590....	13 15 7	227	4	133	3	50	1 6	300
'91-1600....	15 12 8	258	6	200	4	66	—	—
1601-1610....	16 2 2	266	6	200	3	50	—	—
'11- '20....	16 2 8	266	8	266	10	166	1 7	316

Years.	Threshing. (Day.)	Ratio or Decimal Value.	Ploughing. (Day.)	Ratio or Decimal Value.	Women's Agri- culture.	Ratio or Decimal Value.	Carpenters. (Day.)	Ratio or Decimal Value.
1530-1533....	d. 3½	100	d. 8	100	d. 1½	100	d. 5	100
1583-1590....	5½	148	4½	56	1	57	3	60
'91-1600....	—	—	2	25	2½	145	2½	55
-1610....	5	142	3	37	2	120	5	100
- '20....	5½	157	3	37	1½	95	4½	95

(A.)—PRICES in ENGLAND, 1530-1620.—SUMMARY STATEMENT, &c.—*Contd.*

Years.	Masons. (Day.)	Ratio or Decimal Value.	Mason's Labourer.	Ratio or Decimal Value.	Double Spiking. (1,000.)	Ratio or Decimal Value.	Salt. (Quarter.)	Ratio or Decimal Value.
1530-1533....	d. 5	100	d. 3	100	s. d. 3 5½	100	£ s. d. — 4 4	100
1583-1590....	4	80	—	—	8 4	241	1 4 —	554
'91-1600....	2½	45	1½	50	—	—	— 19 2	442
1601-1610....	5	100	2½	75	8 6	243	1 11 1	719
'11- '20....	4	80	2½	75	—	—	2 2 —	969

Years.	Tar. (Gallon.)	Ratio or Decimal Value.	—	—	—	—	—	—
1530-1533....	s. d. 1 7	100	—	—	—	—	—	—
1583-1590....	1 4	84	—	—	—	—	—	—
'91-1600....	1 2½	71	—	—	—	—	—	—
1601-1610....	1 4	84	—	—	—	—	—	—
'11- '20....	1 9	110	—	—	—	—	—	—

The above summary statement (A) establishes conclusively the fact of a *steady and large rise* in the price of nearly all commodities during the thirty-nine years included in the period (1583-1620), over which the Shuttleworth accounts extend. This rise cannot be assigned to any large increase in population, or of national resources. There is no reason to believe that the population increased. There is no evidence of any development of the material prosperity of the nation during the reigns of Elizabeth and James the First, but rather the contrary, if we take into account the scanty Continental influence of both these sovereigns, and there does not appear to have been any increased demand for luxuries. I have inspected some of the bursar's books of St. John's College, Oxford, during the period 1582-1620, and the only purchases of wine by the President and Fellows of what was then* one of the best endowed colleges, were for Sacramental use. And so with other commodities; along with increased price there is evidence of diminished consumption.

Again, the reader will note the virtual, and frequently even the nominal decline in the *price of labour*. This becomes far more marked when the contrast is made with the earlier period, 1530-33.

* The Founder of St. John's, Oxford, endowed it—as I have been told—chiefly with fee-farm rents.

TABLE (B.)—Prices in England, 1530-34

ARTICLES.	1530.		1531.	
	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.
I.				
Wheat	—	£ s. d. £ s. d.	—	£ s. d. £ s. d.
"	—	6 —	—	4 8 @ 5
Barley	—	4 8 @ 4 9	—	5 4 " 6
Malt*	—	4 8 " 5 4	—	11 4 " 10
"	—	5 9 " 5 9½	—	11 —
"	—	6 8 " 7	—	10 6 " 9
"	—	—	—	9 " 8
"	—	—	—	7 6† " —
"	—	—	—	8 8 " 8
"	—	—	—	9 4 " 11
Peas	—	—	—	10 —
Beans	—	—	—	10 8 —
III.				
Oxen	15	10 @ 19	20	7 6 @ 1 7
Cows	11	7 6 " 13	15	8 2 " 13
Stirks	—	3 " 3 4	—	—
Twinters	—	10 —	—	10 " 18
Whyes	—	6 4 —	—	—
Horses	—	14 —	—	17 " 1
Calves	—	—	—	—
IV.				
Rams	8	1 9 @ 2 6	4 {	1 9½ @ 2 4
"	—	—	—	1 2 " 3
Muttons	—	1 10 " 2 2	5	1 6 " 2
Two years	—	1 11 —	—	—
Ewes	—	—	—	2 " 2
Lambs	—	10½ " 1 5	5	10 " 1
Wool..... stone	—	—	—	2 8 —
VI.				
Pigs	12	1 10 @ 5	10	1 8½ @ 5
Boars	—	6 8 " 8	—	6 8 " 8
VI.				
Capons	3	6 @ — 8	4	3½ @ — 6
Chickens	—	—	—	—

It will be observed that the year 1531 was a bad year for barley. The fact must be noted

Arranged under Seventeen Principal Heads.

1532.		1533.		1534.	
Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.
	£ s. d. £ s. d.		£ s. d. £ s. d.		£ s. d. £ s. d.
—	. 6 8 @ . 6 6	—	. 5 4 —	—	— —
—	. 6 4 „ —	—	— —	—	— —
—	. 5 3 „ . 4 8	—	— —	—	— —
} —	. 8 9 „ . 8 6	—	— —	—	— —
—	. 7 . „ . 6 8	—	— —	—	— —
} —	. 8 . „ . 7 9	—	— —	—	— —
} —	. 7 6 „ . 8 4	—	— —	—	— —
—	. 8 . —	—	— —	—	— —
—	. 8 . —	—	— —	—	— —
24	. 6 8 @ 1 1 .	18	. 9 6 @ 1 16 .	—	— —
16	. 7 8 „ . 12 .	17	. 7 9 „ . 12 .	—	— —
—	— —	—	— —	—	— —
6	. 9 . „ . 16 .	—	. 8 4 —	—	— —
—	— —	—	— —	—	— —
—	1 3 9 „ 2 16 3	—	. 15 . —	—	— —
—	. 3 . —	—	— —	—	— —
} 4	. 1 9 @ . 2 4	—	. 2 . —	—	— —
—	. 1 3 „ . 1 9	—	. 1 6 @ . 1 8	—	— —
—	— —	—	— —	—	— —
—	— —	—	. 2 . —	—	— —
4	. . 10 „ . 1 3	3	. . 10 „ . 1 1	—	— —
—	. 3 . —	—	. 3 . „ . 3 4	—	— —
6	. 1 3½ @ . 5 .	8	. 1 10 @ . 5 .	—	— —
—	. 6 . „ . 11 .	—	. 6 8 „ . 8 6	—	— —
5	. . 6 @ . 1 .	5	. . 4½ @ . 6	—	— —
—	. . ½ „ . 1	—	. . 1 „ —	—	— —

s bearing on the general average.

† Norwich.

TABLE (B.)—*Prices in England, 1580-3*

ARTICLES.	1530.				1531.			
	Number of Quo- tations Inves- tigated.	PRICES.			Number of Quo- tations Inves- tigated.	PRICES.		
Pigeons <i>per doz.</i>	—	£	s.	d.	£	s.	d.	
Rabbits <i>per couple</i>	—	.	.	4	—	—	—	
VII.								
Butter..... <i>stone</i>	—	—	—	—	—	—	—	
Oil..... <i>barrel</i>	—	—	—	—	2	.	.	—
Soap..... "	—	—	—	—	1	.	.	@ 1 1
Honey <i>barrel (18 gals.)</i>	—	—	—	—	1	10	.	—
"	—	{	.	1 2 @ . 1 4	—	.	1 6	" . 1
"	—	.	1	8	—	.	1 6	" . 1
Wax <i>dos. lb.</i>	—	.	6	.	—	.	6	.
VIII.								
Salmon <i>scam.</i>	—	.	8	.	3	.	6	.
Cod or ling..... <i>per 1,000</i>	3	18	6	8 @ 20 16 8	3	16	13	4 „ 25
Codling "	—	—	—	—	2	3	6	—
Herrings, Red	—	.	9	.	—	.	9	.
Cade	—	.	6	4 „ . 6 8	3	.	5	.
Herrings, White <i>barrel</i>	—	.	9	8	—	.	10	6
IX.								
Wine, red <i>Ahd.</i>	—	1	10	.	—	1	15	7 @ 2 .
" white "	—	1	13	9	—	1	18	4 „ 2 .
" claret "	—	1	10	.	@ 1 13 4	—	2	.
X.								
Cloth..... <i>dos. ells</i>	—	—	—	—	5	1	3	2 @ 1 1
" 2nd quality	—	—	—	—	4	1	4	.
" 3rd	—	—	—	—	3	.	18	.
Linen, seven qualities, } <i>per ell</i> ranging from	—	—	—	—	—	.	.	8 „ .
						.	.	10 „ .
						.	.	7 1 „ .
						.	.	6 1 „ .
						.	.	5 1 „ .
						.	.	4 1 „ .
XI.								
Spices, foreign, Ginger <i>lb.</i>	—	—	—	—	6	.	1	4 @ . 1

Arranged under Seventeen Principal Heads—Contd.

1532.		1533.		1534.	
Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.
	£ s. d. £ s. d.		£ s. d. £ s. d.		£ s. d. £ s. d.
—	. . 4 „ —	—	— — —	—	— — —
—	. . 2 —	3	. . 4 „ . 6	—	— — —
—	. . 10 —	—	. . 10 @ . . 11	—	— — —
—	1 10 , @ 1 13 4	—	1 10 . —	—	— — —
—	— — —	—	. 13 4 —	—	— — —
—	1 7 , „ 1 10 .	—	1 7 . „ 1 6 8	—	— — —
—	— — —	—	— — —	—	— — —
—	. 6 . „ . 7 .	3	. 5 3 „ . 7 .	—	— — —
3	. 6 . @ . 11 .	4	. 6 . @ . 12 .	—	— — —
—	20 . . —	4	13 6 8 „ 33 6 8	—	— — —
3	1 17 6 —	3	1 13 4 „ 2 . .	—	— — —
—	. 9 . —	3	. 9 . „ 1 . .	—	— — —
—	. 7 . „ . 8 .	—	. 6 8 „ . 7 .	—	— — —
—	. 11 4 „ . 18 .	—	. 11 . „ . 18 .	—	— — —
—	1 3 4 @ 1 13 4	—	— — —	—	— — —
—	— — —	—	— — —	—	— — —
3	1 3 4 „ 1 13 4	—	1 3 4 —	—	— — —
3	1 8 . @ 1 10 .	—	1 6 8 @ 1 12 .	—	— — —
—	1 3 4 „ 1 3 8	—	1 3 4 —	—	— — —
4	. 11 4 „ 1 . .	—	1 . . —	—	— — —
—	— — —	—	— — —	—	— — —
3	. 1 8 @ . 2 .	—	. 1 10 @ . 2 .	—	. 2 . @ . 2 8

TABLE (B).—*Prices in England, 1530-31*

ARTICLES.	1530.				1531.			
	Number of Quo- tations Investi- gated	PRICES.			Number of Quo- tations Investi- gated.	PRICES.		
		£	s.	d.		£	s.	d.
Spices, foreign, Pepper <i>lb.</i>	—	.	1	10	3	.	1	10 @ . 1 11
" Mace..... "	—	.	9	.	3	.	10	" . 12 .
" Cloves "	—	.	9	.	5	.	7	" . 14 .
Fruits, foreign, Dates "	—	.	.	10	3	.	.	6 " . . 1
" Prunes "	—	—	—	—	—	.	.	1½ " . . 1
" Currants "	—	.	.	4	3	.	.	3 " . . 1
" Raisins "	—	.	.	2	—	.	.	2 —
" Figs "	—	.	.	2	—	.	.	3 —
" Almonds "	—	.	.	2	—	.	.	2 " . . 1
Colours, Saffron..... "	—	.	10	8	—	1	2	10½ —
" Sanders "	—	.	1	6	4	.	1	4 " . 2 .
" Turnsole "	—	—	—	—	—	.	1	4 —
Sundries, Liquorice <i>lb.</i>	—	—	—	—	3	.	.	3 " . . 1
" Aniseed "	—	—	—	—	—	.	.	3½ " . . 1
" Rice "	—	—	—	—	3	.	.	2½ " . . 1
" Sugar "	—	—	—	—	4	.	.	7½ " . . 1
XII.								
Metals, Lead <i>fother</i>	—	—	—	—	—	—	—	—
" Iron, Spanish <i>per ton</i>	—	6	.	.	—	—	—	—
" " Lucca "	—	—	—	—	—	—	—	—
" " Weardale .. "	—	—	—	—	—	6	.	@ 5 6 1
" Solder (Tin) <i>per lb.</i>	—	—	—	—	3	.	.	2 " . . 1
" Steel burden (faggot)	—	—	—	—	—	.	3	2 —
" Brass..... <i>per stone</i>	—	—	—	—	—	—	—	—
" Silver <i>oz.</i>	—	.	4	6	—	.	3	8 —
" " gilt "	—	—	—	—	—	.	4	8 —
Plumber..... <i>per day</i>	—	—	—	—	—	.	.	5 —
Glazier's work " <i>foot</i>	—	—	—	—	—	.	.	2 —
XIII.								
Agricultural labourer—								
Mowing..... <i>per day</i>	—	—	—	—	—	.	.	6 —
" " <i>acre</i>	—	.	.	6	—	.	.	6 —

Arranged under Seventeen Principal Heads—Contd.

1532.		1533.		1534.	
Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.
	£ s. d. £ s. d.		£ s. d. £ s. d.		£ s. d. £ s. d.
—	. . 11 —	5	. 1 10 @ . 2 10	3	. 1 9 @ . 1 11
—	. 9 . —	—	. 10 . —	—	. 7 . „ . 9 .
—	. 6 . —	—	. 6 4 „ . 7 .	—	. 6 . „ . 7 6
3	. . 4 @ . . 8	—	. . 5 „ . . 6	—	. . 5 —
—	. . 1½ „ . . 2	—	. . 1½ —	—	— —
3	. . 2½ „ . . 3½	—	. . 3 —	—	. . 3 —
—	. . 1 „ . . 2	2	. . 1½ „ . . 2½	—	. . 1½ —
—	. . 2 —	—	. . 2 —	—	. . 2½ —
—	. . 3 —	3	. . 3 „ . . 4	3	. . 3 —
—	1 1 4 „ . 12 .	—	. 16 9 —	—	1 . . —
3	. 1 4 „ . 2 .	3	. 1 4 „ . 1 8	—	. 1 4 „ . 1 8
—	. 1 4 —	—	. 1 4 „ . 1 8	—	. 1 4 —
—	. . 2 „ . . 2½	—	. . 3 —	—	. . 3 —
—	. . 2½ „ . . 3	3	. . 2 „ . . 3	—	— —
—	. . 2 —	—	. . 2 „ . . 2½	—	. . 2½ —
—	. . 8 —	—	. . 7 „ . . 8	—	. . 7 —
—	— —	{	2 12 . @ 2 18 6	—	— —
—	6 . . @ 5 . .	—	3 5 . —	—	— —
—	— —	—	— —	—	5 8 . —
—	— —	—	6 . . „ 6 13 4	—	— —
3	. . 2 „ . . 5	3	. . 3 „ . . 4	—	— —
—	— —	—	. 3 . —	—	— —
—	1 9 —	—	. 1 9 —	—	— —
—	— —	—	— —	—	— —
—	— —	—	— —	—	— —
—	. . 5 —	—	. . 5 —	—	— —
—	. . 2 —	—	. . 2 —	—	— —
—	— —	—	— —	—	— —
—	. . 6 —	—	. . 6 —	—	— —
—	. . 6 —	—	. . 6 —	—	— —

TABLE (B).—*Prices in England, 1530-34,*

ARTICLES.	1530.				1531.			
	Number of Quotations Investigated.	PRICES.		Number of Quotations Investigated.	PRICES.			
		£	s. d.	£	s. d.	£	s. d.	£ s. d.
Reaping, yane*	—	—	—	—	—	1	—	—
„ „ and binder day....	—	—	—	—	—	—	—	—
Threshing, Wheat and rye <i>qr.</i>	—	—	—	—	—	4	—	—
„ Barley	—	—	—	—	—	3	—	—
„ Oats	—	—	—	—	—	2 @	—	—
„ Peas, beans.....	—	—	—	—	—	2 „	—	—
„ „ <i>per day</i>	—	—	—	—	—	—	—	—
Winnowing	—	—	—	—	—	1	—	—
Ploughing, day, without food....	—	—	—	—	—	9	—	—
Women's work	—	—	—	—	—	—	—	—
Dung cart, day, without food	—	—	—	—	—	9	—	—
„ with „	—	—	—	—	—	—	—	—
Spreading dung	—	—	—	—	—	—	—	—
Thatcher	—	—	—	—	—	—	—	—
„ and man	—	—	—	—	—	—	—	—
XIV.								
Carpenter	—	—	—	3	—	3 @	—	—
„ (two—man { „ <i>week</i>	—	—	—	—	—	3 4	—	—
and son) { <i>all year</i>	—	—	—	—	—	—	—	—
Wainscots	—	—	—	—	—	4 3 4	—	—
Sawyers	—	—	—	3	—	1 8 „ 3	—	—
„ „ <i>day</i>	—	—	—	—	—	—	—	—
Laths, rending	—	—	—	—	—	3	—	—
Wheelwright, &c.	—	—	—	—	—	1 13 4	—	—
Mason	—	—	6	3	—	4 „ 6	—	—
„ „ <i>man</i>	—	—	23	—	—	3	—	—
„ „ <i>rod</i>	—	—	—	—	—	4 6	—	—
Painting	—	—	—	—	—	8	—	—
Plastering.....	—	—	—	—	—	—	—	—
Hewing stone	—	—	—	—	—	—	—	—
XV.								
hold servants	—	—	—	13	—	5 „ @	—	—

* Three reapers are a yane.

Arranged under Seventeen Principal Heads—Contd.

1532.			1533.			1534.		
Number of Quo- tations Inves- tigated.	PRICES.		Number of Quo- tations Inves- tigated.	PRICES.		Number of Quo- tations Inves- tigated.	PRICES.	
	£ s. d.	£ s. d.		£ s. d.	£ s. d.		£ s. d.	£ s. d.
—	—	—	—	—	—	—	—	—
—	—	—	—	. 1 4	—	—	—	—
—	. . 4	—	—	. . 4	—	—	—	—
—	. . 3	—	—	. . 3	—	—	—	—
—	. . 2	—	—	. . 2 @ . . 3	—	—	—	—
—	—	—	—	. . 2 „ . . 4	—	—	—	—
—	—	—	—	. . 3 „ . . 4	—	—	—	—
—	. . . ½	—	—	. . . ½	—	—	—	—
—	. . 8	—	—	. . 8	—	—	—	—
—	. . 1½	—	—	. . 2	—	—	—	—
—	—	—	—	—	—	—	—	—
—	. . 3	—	—	—	—	—	—	—
—	. . 1½	—	—	—	—	—	—	—
—	—	—	—	{ . . 3 „ . . 3½ }	—	—	—	—
—	. . 7 @ . . 6	—	—	. . 4	—	—	—	—
4	. . 3 @ . . 6	—	—	. . 6	—	—	—	—
—	. 3 4	—	—	. 3 4	—	—	—	—
—	5 . . „ 6 13 4	—	—	—	—	—	—	—
—	. 2 8 „ . 3 .	—	—	. 2 8	—	—	—	—
—	. . 6	—	—	—	—	—	—	—
—	. 3 .	—	—	. 6 . @ . 9 .	—	—	—	—
—	1 13 4	—	—	1 13 4	—	—	—	—
—	—	—	4	. . 3 „ . . 6	—	—	—	—
—	—	—	—	—	—	—	—	—
—	. 3 . „ . 4 6	—	—	. 4 6	—	—	—	—
—	. . 8	—	—	. . 8	—	—	—	—
—	—	—	5	. . 2 „ . . 5	—	—	—	—
4	. . 3 „ . . 6	—	—	. . 5	—	—	—	—
12	6 13 4 @ . 6 8	12	12	6 13 4 @ . 6 8	—	—	—	—

TABLE (B.)—*Prices in England, 1530-34.*

ARTICLES.	1530.				1531.			
	Number of Quotations Investigated.	PRICES.			Number of Quotations Investigated	PRICES.		
XVI.								
Smith, working iron stone	—	£	s. d.	£ s. d.	—	£	s. d.	£ s. d.
Nails, per 1,000, double spiking	—	.	2	—	—	.	2	—
" single "	—	.	3	@ . 3 4	—	.	2 6	—
" brags "	—	—	—	—	—	.	1 6	—
Hair cloth	ell	—	—	—	—	.	10	—
Sackcloth (4 ells to a sack)	"	—	—	—	5	.	3	—
Sewing hair	lb.	—	—	—	—	.	2 @ . . .	—
Girth webb	doz.	—	—	—	—	.	7½	—
Spinning flax (women)	lb.	—	—	—	—	—	—	—
XVII.								
Lime, per load, not carried	—	—	—	—	—	.	1 3	—
Collier	per day	—	—	—	—	.	4½	—
Salt	qr.	—	—	—	—	.	4	—
XVIII.								
Tar	barrel	—	—	—	—	.	5	—
"	gallon	—	—	—	—	—	—	—
Rosin	doz. lb.	—	—	—	—	.	1 6	—
Pitch	tone	—	—	—	—	—	—	—
"	barrel	—	—	—	—	.	5	—
Paper	per quire	—	—	—	—	—	—	—
"	" ream	—	—	—	—	.	3	—
Parchment, large	doz.	—	—	—	—	.	3	—
" small	"	—	—	—	—	.	1 8	—
Millstones	pair	—	—	—	—	.	16	—
Land carriage, 4 hhds. from } Newcastle to Durham	}	—	1 10	—	—	—	—	—
Land carriage, 5 barrels of } herrings from Chester		—	2 0	—	—	—	—	—
Land carriage, 2 hhds. from } Chester	}	—	—	—	—	—	—	—
Sea carriage, Berwick to Dur- } ham, 10 barrels herrings		—	3 4	—	—	—	—	—
Sea carriage, Shields to Dur- } ham, 18 barrels herrings	}	—	—	—	—	—	—	—
Sea carriage, Newcastle to Dur- } ham, tun of wine		—	—	—	—	—	—	—

Arranged under Seventeen Principal Heads—Contd.

1532.		1533.		1534.	
Number of Quotations Investigated.	PRICES.	Number of Quotations Investigated.	PRICES.		PRICES.
	£ s. d. £ s. d.		£ s. d. £ s. d.		£ s. d. £ s. d.
—	. . 2 —	—	. . 2 —	—	— —
—	— —	—	. 5 0 —	—	— —
—	. 1 6 —	—	— —	—	— —
—	1 . . —	—	— —	—	— —
—	— —	—	. . 4 —	—	— —
—	. . 3 —	—	. . 2½ —	—	— —
—	. . 4 —	—	. . 4 —	—	— —
—	. . 9 —	3	. . 8 @ . . 10	—	— —
—	. . 1 —	—	— —	—	— —
—	. 1 3 —	3	. 1 3 @ . 2 .	—	— —
—	. . 3 —	—	. . 3 —	—	— —
—	. 7 9½ —	—	. 3 4 —	—	. 4 2½ —
—	. 5 8 @ . 5 10	—	. 8 . —	3	. 3 8 @ . 6 .
—	. 1 4 „ . 1 10	—	— —	—	— —
—	. 1 6 —	—	. . 7 —	—	— —
—	. 2 4 —	—	. . 6 —	—	— —
—	— —	—	— —	—	— —
—	. . 2 „ . . 3	—	. . 2½ „ . . 3	—	— —
—	. 2 8 —	—	— —	—	— —
—	. 2 8 „ . 3 .	—	— —	—	— —
—	— —	—	. 2 . —	—	— —
—	. 16 . „ . 18 .	—	. 18 0 —	—	— —
—	— —	—	— —	—	— —
—	— —	—	— —	—	— —
—	— —	—	. 1 8 —	—	— —
—	— —	—	— —	—	— —
—	— —	—	. 1 . —	—	— —
—	— —	—	. 2 4 —	—	— —

TABLE C.—*Prices of COMMODITIES in ENGLAND, 1582-1620, computed from the sources mentioned below.*

TABLE C.—The commodities in the following columns are priced in *shillings and pence*. There are two exceptions, i. e. the prices of iron and lead, by the ton of 20 cwt. and the fother of 19½ cwt., which are denoted by £ s. d.

The italics annexed to prices are to be understood as follows:—

l. Lloyd's prices of wheat, malt, and occasionally of barley, oats, peas, and beans in the Oxford market. The first is on Lady-day, the second on Michaelmas.

n. The Bursar's rolls (annual) of New College, used in these tables for the prices of one year only, 1582.

e. Prices in Eden's "History of the Poor." These are not very trustworthy, unless supported by other testimony.

r. Robert's "Southern Counties."

w. Lord Wharton's "Household Book," in the *Archæologia Eliana*, 1585.

s. Shuttleworth Accounts.

In some of the cols. as "Hops," the prices are in pence, and consistently with the notation of the rest of the table, are expressed "2s," which signifies twopence, from the *s. s. Shuttleworth Accounts*.

Where no letter is annexed the price is taken from the Shuttleworth Accounts.

Years.	Wheat. (Qr. 8 bushels.)	Rye. (Qr. 8 bushels.)	Barley. (Qr. 8 bushels.)	Malt. (Qr. 8 bushels.)
1582	16/4n, 22/8n	—	16/s	—
'83	{ 19/e, 17/9l, 16/7l, 49/4s }	—	16/8s, 16/s, 18/8	11 4l
'84	{ 20/e, 37/4s, 15/5l, 16/l }	—	—	11/4l, 11/4l
'85	{ 24/e, 17/2l, 24/11l, 26/8w, 53/4w }	26/8w	—	{ 11/4l, 13/10l, 26/8w }
1586	{ 40/e, 60/s, 50/8s, 28/r, 64/r, 29/8l, 34/4l }	48/r, 36/e	{ 18/8r, 42/8r, 32/s, 26/8s }	24/e, 16/4l, 17/7l
'87	{ 100/e, 20/e, 39/1l, 16/7l, 80/r, 96/s }	21/4r	17/4r, 18/r	21/4l, 15/7l
'88	11/10l, 16/7l	—	—	9/5l, 9/5l
'89	19/l, 20/2l	10/e, 16/e	13/4e	11/4l, 13/6l
1590 ...	23/8l, 22/6l, 21/e	17/6e	13/4e	12/7l, 20/7l
'91 ...	21/4l, 19/l, 18/e, 39/s	—	—	18/10l, 15/8l
'92 ...	{ 30/10s, 16/7l, 24/8s, 18/e, 29/8 }	—	18 8s	11/4l, 11/4l
'93 ...	{ 21/4s, 16/l, 20/9l, 20/e, 12/e }	8/e	12/e	{ 12/e, 10/8l, 11/11l }
'94	{ 22/6l, 41/6l, 48/e, 56/e }	40/e, 32/e	18/8s	12/7l, 20/7l

TABLE C.—*Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.*

Years.	Wheat. (Qr. 8 bushels.)	Rye. (Qr. 8 bushels.)	Barley. (Qr. 8 bushels.)	Malt. (Qr. 8 bushels.)
1595 ...	{ 39/11, 37/111, 72/r, 50/8s, 42/e, 44/e, 53/4e }	80/r, 42/8s, 26/8e	24/s, 20/e	64/r, 22/71
'96 ...	{ 35/71, 56/111, 36/e, 100/e, 80/r, 120/r }	66/r, 48/e, 39/4e	48/r	18/101, 30/11
'97 ...	{ 64/1, 49/91, 160/r, 32/e, 106/8e }	{ 112/r, 42/6e, 72/6e }	104/r, 120/r	37/81, 32/81
'98 ...	{ 47/51, 28/51, 64/r, 16/e, 18/e }	48/r	48/r	25/11
'99 ...	{ 32/r, 26/11, 21/41, 27/e, 28/e }	—	20/r	15/11, 13/101
1600 ...	24/111, 33/21	—	—	13/101, 20/11
'01 ...	28/51, 24/111, 42/8r	—	30/8s	20/11, 18/101
'02 ...	20/21, 28/51, 69/4r	—	24/s	{ 15/11, 13/101, 26/8s }
'03 ...	30/31, 23/11	—	24/s, 26/8s	12/71, 12/71
'04 ...	{ 40/s, 23/81, 24/111, 53/4r }	—	—	11/111, 14/11
1605 ...	{ 28/51, 25/61, 40/s, 45/4s }	—	20/s	17/71, 19/51
'06 ...	23/81, 27/31	—	20/s	{ 34/8s, 16/111, 16/111 }
'07 ...	30/101, 27/31	—	—	16/41, 16/41
'08 ...	32/1, 56/111	—	—	16/111, 25/11
'09 ...	51/1, 29/81	—	—	26/41, 23/101
1610 ...	26/11, 28/51	—	—	16/41, 15/11
'11 ...	29/81, 30/101	—	—	15/81, 18/21
'12 ...	35/71, 37/111	—	—	20/11, 25/11
'13 ...	36/91, 42/81	—	—	25/11, 22/71
'14 ...	42/81, 45/71	—	—	25/11, 26/41
1615 ...	29/1, 35/71	—	—	21/41, 22/71
'16 ...	35/71, 34/41	—	—	23/10, 20/11
'17 ...	64/s, 37/111, 41/61	—	16/81, 29/4s	17/71, 17/71
'18 ...	64/s, 72/s, 40/41, 35/71	—	15/31, 16/11, 32/s	17/71, 20/11
'19 ...	{ 64/s, 30/101, 40/e, 30/101 }	—	13/111, 15/11	17/71, 17/71
1620 ...	48/s, 64/s, 26/81, 26/11	—	10/101, 13/41	16/111, 14/5

TABLE C.—*Prices of Commodities in ENGLAND, 1582-1620—Contd.*

Years.	Oats. (Qr. 8 bushels.)	Peas. (Qr. 8 bushels.)	Beans. (Qr. 8 bushels.)	Hops. (lb.)	Seeds. (Qr. 8 bushels.)		
					Linseed.	Mustard.	Hemp.
1582	—	—	—	$5\frac{1}{2}s$, $2s$	—	—	—
'83	—	—	—	$5\frac{1}{2}s$	—	—	—
'84	$9/2s$	$20/2s$	$20/9s$	—	—	—	$16\frac{1}{2}s$
'85	—	—	—	$6w$, $5\frac{1}{2}$	—	—	—
1586	—	—	$40/s$	—	—	—	—
'87	$12/r$	—	$55/4s$	$4e$	—	—	$37/4s$
'88	—	—	—	$7s$	—	—	$56\frac{1}{2}s$
'89	—	—	—	—	$26/8s$	—	$37/4s$
1590	$5/4e$	—	—	—	—	—	—
'91	—	—	$26/8s$	—	—	$69/4s$	—
'92	—	—	—	$6\frac{1}{2}s$	—	—	—
'93	—	$13/4e$	$13/4e$	—	—	$64/s$	$42/8s$
'94	—	—	$16/s$, $17/4s$	—	—	—	—
1595	—	—	—	$4\frac{1}{2}s$ {	$28/8s$, $49/s$ }	—	—
'96	$18/8r$	—	—	$4s$	—	—	—
'97 ...	$32/r$, $28/s$	—	—	$5s$	—	—	—
'98	$14/8r$	—	—	$5s$	—	$50/8s$	$48/s$
'99	—	—	—	—	—	—	$53/4s$
1600	—	—	$26/8s$	$6s$, $7s$	—	—	—
'01	$18/8s$	—	—	$8s$	—	—	—
'02	—	—	—	—	—	—	—
'03	—	—	—	$1/6s$	—	—	—
'04	$9/4e$	—	—	—	—	—	—
1605	—	$19/4s$	—	$7s$, $7\frac{1}{2}s$	—	—	—
'06	—	—	—	—	—	—	—
'07	—	—	—	—	—	—	—
'08	—	—	—	—	—	—	—
'09	$15/4s$, $12/s$	—	London. $20/s$	—	—	—	—

TABLE C.—*Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.*

Years.	Oats. (Qr. 8 bushels.)	Peas. (Qr. 8 bushels.)	Beans. (Qr. 8 bushels.)	Hops. (lb.)	Seeds, (Qr. 8 bushels.)		
					Linseed.	Mustard.	Hemp.
1610	—	Pottage. Cattle. 32/s, 13/4s	—	/9s	—	—	—
'11	—	—	—	—	—	—	—
'12	—	—	80/s, 54/8	—	—	—	—
'13	16/s	—	—	—	—	—	—
'14	—	—	—	—	—	—	—
1615	—	32/s	—	—	—	—	—
'16	—	—	—	—	—	—	—
'17	—	—	—	/6½s	—	64/s	—
'18	—	—	—	/9½s	—	—	—
'19	—	—	—	/11½s	—	—	—
1620	8/11½, 10/1½	16/8½, 17/2½	15/8½, 18/8½	—	—	—	—

Years.	Beef.		Mutton.			Veal. (Carcase.)
	Carcase.	Stone.	Carcase.	Suet.	Lamb.	
1582	105/s, 102/6s	—	4/s	—	—	4/s
'83	—	—	5/4, 2/8	—	—	4/s
'84	—	—	5/4	—	—	4/, 5/4
'85	60/w, 40/w	—	3/4w, 4/w, 5/w	—	—	4/w
1586	—	—	13/4	/4	—	5/, 6/, 11/
'87	—	—	11/, 6/, 6/8	/4	—	4/8, /6
'88	85/8	—	10/	—	—	12/
'89	—	—	—	—	—	—
1590	—	—	5/4	—	—	4/4, 6/
'91	—	—	—	—	5/	6/
'92	—	—	—	—	—	—
'93	—	—	6/6, 7/4	—	—	5/4
'94	—	—	—	—	—	4/11
1595	—	3/s	14/e	—	—	—
'96	—	1/6e	18/e	—	—	5/, 5/4
'97	—	1/6e, 2/2e	—	—	—	—
'98	—	1/6e	12/, 15/	—	—	—
'99	—	—	—	—	—	—

TABLE C.—*Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.*

Years.	Beef.		Mutton.			Veal. (Carcase.)
	Carcase.	Stone.	Carcase.	Suet.	Lamb.	
1600	48/4	—	6/4	/4	—	4/
'01	—	—	—	/4	—	6/
'02	—	—	7/1	—	—	4/8, 9/6
'03	—	—	—	—	—	—
'04	—	—	—	—	—	8/
1605	—	—	—	—	—	6/, 10/8
'06	—	—	6/, 5/4	—	—	10/8, 8/8
'07	—	—	—	—	—	—
'08	—	London. 1/6	—	/5	—	—
'09	—	—	—	—	—	—
1610	—	—	9/, 11/6	—	—	8/, 16/6, 18/11
'11	—	—	—	/4	—	8/8
'12	40/ 29/4	—	6/, 10/8	/4½	—	—
'13	—	—	—	—	—	12/
'14	—	—	—	—	—	—
1615	—	—	—	—	—	—
'16	—	—	—	—	—	—
'17	—	—	—	/5	—	8/, 6/7
'18	54/	—	8/	—	—	9/3
'19	—	1/6	10/	/4	—	—
1620	—	—	7/4	/5	—	—

Years.	Pork. (Carcase.)	Oxen. (Carcase.)	Calves. (Carcase.)	Sheep. (Carcase.)	Lambs. (Carcase.)	Wool (Stam.)
1582 ...	—	—	—	—	—	—
'83 ...	—	{ Cows 32/6, 26/ 58/10, 40/8 }	4/2	—	—	—
'84 ...	—	{ Cows 43/, 33/4 90/, 52/4 }	6/2, 4/4, 2/8e, 7/e }	6/	1/6e, 2/e	—
'85 ...	1/w	140/e	—	4/, 12/6e	—	—
1586 ...	1/6	80/, 60/	—	5/	—	—
'87 ...	—	81/, 53/4	7/4e	5/7½	2/—½	4.
'88 ...	1/	60/2	5/10	—	4/8	—
'89 ...	7/9e, 8/e, 3/e	72/3	—	{ 6/8, 4/10½, 5/e }	—	16

TABLE C.—*Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.*

Years.	Pork. (Carcase.)	Oxen. (Carcase.)	Calves. (Carcase.)	Sheep. (Carcase.)	Lambs. (Carcase.)	Wool. (Stone.)
1590	—	60/	—	6/4e, 6/8e	—	—
'91	2/3, 1/2	52/4, 50/	—	—	—	—
'92	1/11, 3/4	81/, 69/6	—	—	—	13/
'93	—	—	—	—	—	—
'94	—	75/, 60/	—	5/8	3/	—
1595	—	71/	—	—	—	13/4
'96	2/8e	—	—	5/, 15/e	—	—
'97	—	80/7½,	{ 6/4e, 8/e, 5/9	{ 14/6e, 18/e, 3/9, 5/2 }	—	13/4
'98	1/e	90/	12/8, 4/	5/7, 7/6e	1/3	—
'99	—	82/6	—	5/	6/	—
1600	—	—	—	—	—	—
'01	—	78/9, 84/	—	—	—	—
'02	—	—	—	—	—	—
'03	—	—	—	—	—	—
'04	3/	70/6	—	—	—	7/6
1605	3/8, 2/8	85/6, 64/6	—	—	—	—
'06	—	86/8	—	—	—	—
'07	—	—	—	—	—	—
'08	London. 2/, 2/6	—	—	—	London. 6/	—
'09	London. 2/6	—	—	—	London. 7/4	—
1610	2/4, 5/	—	—	—	5/, 6/8e	—
'11	—	95/4	—	—	—	—
'12	1/6	87/6, 94/	8/9, 9/	—	—	—
'13	—	84/5	—	5/4	—	—
'14	—	—	—	—	—	—
1615	Bacon, stone. 2/2	—	—	—	—	—
'16	—	—	—	—	—	—
'17	—	123/4	—	6/10	—	—
'18	—	115/	—	5/, 6/8	4/, 3/8	—
'19	—	150/, 114/6	6/, 7/6,	—	5/4	—
1620 ...	—	116/, 93/4	11/, 9/	—	—	—

TABLE C.—*Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.*

Years.	Pigeons. (Dozen.)	Chickens.	Capons.	Hens.	Geese.
1582	—	—	—	/4s	—
'83	—	/1½s, /2s	—	—	—
'84	—	/1½s, /2s	—	—	/8s
'85	—	—	1/w, 1/2w	/3w, /4w	/4w, /8w, /10w
1586	—	/1s, /2s	—	—	/4s, /5s
'87	—	/2½s	—	—	/4s
'88	—	—	/8s, /9s, /10s	/4s, /5s	/5s
'89	—	—	—	—	1/e, 1/2e, /3s
1590	—	/2s, /2½s	/7s, /8s, /8½s	—	/4s
'91	—	/2s	/6s, /6½s, /7s	/4s	—
'92	1/6s	—	—	—	/5s
'93	—	/2s	/6s	—	/4s, /9s
'94	—	/2	—	—	/4s
1595	—	—	3/4e	—	/3½s
'96	—	—	2/3e	—	/4s, /8s, 1/e, 1/8e
'97	—	/8e, /4s	3/e, 3/4e	—	/3s
'98	1/6s	/2s, /2½s	1/e, 1/2e	/6e	/6s, /7s
'99	—	/2s	—	—	/4½s
1600	—	—	—	—	—
'01	—	—	—	—	—
'02	—	/2s	—	—	—
'03	—	—	—	—	—
'04	—	—	—	—	—
1605	—	/2s	—	—	—
'06	—	—	—	—	—
'07	—	—	—	—	—
'08	—	/6s, /9s	2/4s	—	2/2s
'09	2/s	—	—	—	—
1610	—	/3½	1/s	—	/6s, /8s
'11	—	—	—	—	—
'12	1/s	/2s, /2½s	1/2s	/6s	/7s
'13	—	—	—	—	—
'14	—	—	—	—	—

TABLE C.—*Prices of Commodities in England, 1582-1620—Contd.*

Year.	Pigeons. (Dozen.)	Chickens.	Capons.	Hens.	Geese.
1615	—	—	—	—	—
'16	—	—	—	—	—
'17	—	—	1/s	/4s	/5s, /8s, /9s
'18	—	/3s	1/s	—	/10s, 1/s,
'19	—	—	2/5½s	./3½s	/9s
1620	—	/2½s, /3s	—	—	/8s, 1/s

Years.	Larks, (Dozen.)	Rabbits, (Couple.)	Eggs, (100.)	Ducks.	Snipes.
1582	—	—	—	—	—
'83	—	—	—	—	—
'84	—	—	—	—	—
'85	—	/4w, /6w	—	/4w	/1½w, /1¼w
1586	—	—	c /11½w	—	—
'87	/1s, /1½s, /2s	—	—	—	—
'88	—	/6½s	1/4½s	—	—
'89	/2s	—	—	—	—
1590	/2s	/9s	—	—	/½s
'91	/2s	/7s, /10s	1/4½s	/3s	/½s
'92	/2s, /2½s	/6s, /10s,	—	/2s	—
'93	—	/10s	—	/2s	—
'94	/2s	/10s	—	—	/1½s
1595	/1½s	1/4e	—	—	/1s
'96	/1e	—	—	—	/2s
'97	/2s	1/e, 1/2s, 1/8s	—	—	/1½s
'98	—	/6e, 1/e	1/8s, 2/1s	/4e	—
'99	1/s	—	—	—	/2s
1600	—	—	—	—	—
'01	—	—	—	—	—
'02	—	—	—	—	—
'03	—	—	—	—	—
'04	—	—	—	—	—

TABLE C.—*Prices of Commodities in England, 1582-1620—Contd.*

Years.	Larks. (Dozen.)	Rabbits. (Couple.)	Eggs. (100.)	Ducks.	Snipes.
1605	—	—	—	—	—
'06	—	—	—	—	—
'07	—	—	—	—	—
'08	—	1/s	3/4s	—	—
'09	—	—	—	—	—
1610	—	/8s, /10s	2/s	—	/1s
'11	/2s	1/s	—	—	—
'12	—	—	—	—	—
'13	—	—	—	—	—
'14	—	—	—	—	—
1615	—	—	—	—	—
'16	—	—	1/4½s	—	—
'17	/2s	/10s	1/4½s	—	/1s
'18	—	—	1/4½s, /10s	—	—
'19	—	1/5e	4/e	—	—
1620	—	—	—	—	—

Year.	Soap. (lb.)	Butter. (Stone.)	Tallow and Candles. (Stone.)	Honey. (Gallon.)	Herrings. Red and White. (100.)	Salmon. (Each.)	Salt Fat (Dozen.)
1582	—	2/8s	—	—	—	—	—
'83	/4s	3/s	—	—	{ 2/-½s, 1/20½s 1/10½s }	—	} 4/5s
'84	—	—	—	2/4s	1/10½s	4/s	—
'85	—	—	3/8w, 4/8w	—	2/6w	2/w, 5/8½s	10/s, 12s
1586	—	—	Tallow. 4/6s	—	—	—	—
'87	/3e	3/6e, 2/11e	4/8e, 5/10e	—	3/4s	7/s	—
'88	—	—	—	2/4s	2/-½s	6/1s	—
'89	/8e	4/8e	4/8e	—	2/s	7/s	20/, 4/, 1
1590	—	—	—	—	1/11½s	—	—
'91	—	—	—	—	{ 2/4s, 1/9½s, 1/6s }	6/s	—
'92	—	—	—	—	3/4s, 2/s	—	20/
'93	—	—	—	—	{ 2/7s, 3/8s, 2/3s }	7/s	—
'94	—	London. 5/10s	—	—	2/9s, 3/4s	4/s, 8/6s	48/ @ 1s

TABLE C.—*Prices of Commodities in ENGLAND, 1582-1620—Contd.*

Years.	Soap. (lb.)	Butter. (Stone.)	Tallow and Candles. (Stone.)	Honey. (Gallon.)	Herrings. Red and White. (100.)	Salmon. (Each.)	Salt Fish. (Dozen.)
1595	—	—	—	—	3/s	6/8s, 5/s	30/s
'96	—	4/8s, 5/10s	4/8s, 5/10s	—	—	3/8s, 6/	36/s
'97	—	5/10s, 7/2s	5/3s	5/4s	—	—	33/
'98	—	5/3s	4/8s	—	3/8s, 3/4s	3/8s, 9/s	—
'99	—	—	—	—	2/6s	7/8s	—
1600	/4s	3/4s	5/3s, 5/10s	4/8s, 5/4s	—	—	—
'01	/4s	3/4s, 4/s	5/3s, 5/10s	5/4s	—	—	—
'02	—	4/s	5/10s	5/4s, 6/s	—	3/s	—
'03	—	—	—	—	2/s	—	—
'04	—	2/8s	—	4/s	—	—	—
1605	—	—	5/10s	—	2/7½s	—	—
'06	—	3/8s	—	—	2/1s	3/4s	—
'07	—	—	—	—	—	—	—
'08	—	London. 5/10s, 7/2s	London. 4/8s	—	—	—	—
'09	London. /3½s	London. 7/2s	—	—	London. 3/s, 2/8s, 2/s	2/6s	—
1610	—	—	5/10s	—	—	6/s	30/s
'11	—	4/s	4/11½s	—	—	—	—
'12	/4½s	4/s	4/3½s	5/4s, 6/4s	2/8s	—	20/s, 22/s
'13	/4s	4/s	{ 4/8s, 4/11½s, 5/3s }	—	2/5s	—	24/s
'14	—	—	—	—	—	—	—
1615	—	5/e	—	—	—	—	—
'16	—	—	—	—	—	—	—
'17	/1	—	—	5/4s	—	1/6s	30/s
'18	/1	3/4s, 4/s	—	—	—	—	24/
'19	—	7/2s	—	5/4s	—	—	—
1620 .	/1	—	—	5/4	—	—	—

Years.	Wine, Red. (Gallon.)	Wine, White. (Gallon.)	Wine, French. (Gallon.)	Vinegar. (Gallon.)	Flax. (Stone.)	Hemp. (Stone.)
1582	—	2/s, 2/8s	1/4s	1/4s	—	—
'83	—	2/s, 2/4s	1/11s, 1/4s	1/4s	—	—
'84	3/4s	2/9s	—	—	—	—
'85	—	2/8s, 3/s, 3/11½s	1/4s	1/4s	—	—

TABLE C.—*Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.*

Years.	Wine, Red. (Gallon.)	Wine, White. (Gallon.)	Wine, French. (Gallon.)	Vinegar. (Gallon)	Flax. (Stone.)	Hemp. (Stone)
1586	—	—	—	—	—	—
'87	—	3/3s	—	—	—	—
'88 ...	—	1/8s, 3/2s, 2/s	1/8½s	1/2s	—	—
'89 ...	—	3/3s	2/8s	—	—	—
1590	—	3/1½s	—	—	—	3/2s, 3½s
'91	—	3/4s	—	—	—	—
'92	—	3/2s, 2/4	1/7s	—	—	—
'93	—	—	—	—	—	7/11½
'94	—	2/s	2/s	—	—	—
1595	—	—	—	—	—	5/4s
'96 ...	—	2/8s, 2/e, 4/s	2/8s, 2/9s, 2/e	/8s	—	—
'97	3/4s	2/8s	2/e	/8s	—	—
'98	—	4/e, 4/8s	2/6s	/8s	—	—
'99	—	4/e	2/8s	—	—	—
1600	—	—	—	—	—	—
'01	—	—	—	—	6/8s	—
'02	—	—	2/8s	—	—	—
'03	—	—	—	—	—	—
'04	—	—	—	—	—	—
1605	—	—	—	—	—	—
'06	—	—	—	—	—	—
'07	—	—	—	—	—	—
'08	3/4s, 4s/	2/8s	2/8s r	2/8s	—	—
'09	—	4/s	—	—	—	—
1610	—	3/s, 4/s	2/8s	1/4s	6/1s	—
'11	—	4/s	—	—	6/s	—
'12	—	1/8s, 2/s, 3/4s	2/s	—	5/9s	—
'13	—	—	2/s	—	—	—
'14	—	—	—	—	—	—
1615	—	—	—	—	—	—
'16	—	—	—	—	—	—
'17	—	4/s, 4/s, 3/s	2/s	—	—	—
'18	4/7	—	—	1/4s	9/6s	—
'19	—	4/e, 2/8s	4/e	—	—	—
1620	—	3/4s, 2/8s	—	—	—	14/,

TABLE C.—*Prices of Commodities in England, 1582-1620—Contd.*

Years.	Cinnamon. (lb.)	Mace. (lb.)	Cloves. (lb.)	Ginger. (lb.)	Pepper. (lb.)
1582	—	—	—	—	—
'83	—	—	—	—	4/s, 2/8s, 2/10s
'84	—	—	—	—	4/s
'85	12/ @ 8/8w	14/8 @ 14/w	7/ @ 4/6w	3/ @ 1/8w	3/8w @ 5/w
1586	—	—	—	—	—
'87	—	—	—	—	4/s
'88	—	—	—	—	—
'89	—	—	—	—	—
1590	—	—	13/4e	—	—
'91	—	—	—	—	3/6s
'92	—	—	—	—	—
'93	—	—	—	—	—
'94	—	—	—	—	—
1595	—	—	—	—	—
'96	—	—	—	3/s	3/8s
'97 ...	5/e, 7/6e	—	7/6s	3/4e	3/10s
'98	—	—	8/e	—	3/4e @ 8/e
'99	—	—	—	—	—
1600	—	—	—	—	5/4s
'01	—	—	—	—	5/4s
'02	—	—	—	—	3/1s, 5/4s
'03	—	—	—	—	—
'04	—	—	—	—	2/4s
1605	—	—	—	—	—
'06	—	—	—	—	—
'07	—	—	—	—	—
'08	—	10/s	5/4s	1/4s	2/s
'09	—	—	—	—	—
1610 ...	10/8s	—	—	—	—
'11	—	—	—	—	—
'12 ...	—	—	—	—	—
'13	—	—	—	—	—
'14	—	—	—	—	—

TABLE C.—*Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.*

Years.	Cinnamon. (lb.)	Mace. (lb.)	Cloves. (lb.)	Ginger. (lb.)	Pepper. (lb.)
1615 ...	—	—	—	—	—
'16 ...	4/s	7/9s	7/6s	1/6s, 1/8s	—
'17 ...	4/s	7/6s, 7/9s	7/4s	1/4s	—
'18 ...	5/4s	—	—	1/4s	—
'19 ...	5/4s	—	—	—	—
1620 ...	—	—	—	1/4s	—

Years.	Aniseed. (lb.)	Nutmegs. (lb.)	Carraways. (lb.)	Saffron. (oz.)	Sanders. (lb.)	Raisins. (lb.)
1582 ...	—	—	—	—	—	—
'83 ...	—	—	—	—	—	—
'84 ...	—	—	—	—	—	—
'85 ...	9w	7/4w @ 9/w	—	2/6w	—	4w
1586 ...	—	—	—	—	—	2½s
'87 ...	—	—	—	—	—	4s
'88 ...	—	—	—	—	—	—
'89 ...	—	—	—	—	—	—
1590 ...	—	—	—	—	—	—
'91 ...	—	—	—	—	—	4½s
'92 ...	—	—	—	—	—	—
'93 ...	—	—	—	—	—	3½s
'94 ...	—	—	—	—	—	—
1595 ...	—	—	—	—	—	—
'96 ...	—	—	—	—	—	—
'97 ...	—	6/s	—	—	—	—
'98 ...	—	—	—	—	—	6s
'99 ...	—	—	—	—	—	—
1600 ...	—	—	—	—	—	—
'01 ...	1/s, 1/4s	—	6s	—	—	—
'02 ...	1/4s	—	—	—	—	6s
'03 ...	—	—	—	—	—	—
'04 ...	1/s	—	—	—	—	6s

TABLE C.—*Prices of Commodities in ENGLAND, 1582-1620—Contd.*

Years.	Aniseed. (lb.)	Nutmegs. (lb.)	Carraways. (lb.)	Saffron. (oz.)	Sanders. (lb.)	Raisins. (lb.)
1605	/8s	—	—	—	—	/7s
'06	/10s	—	—	—	—	—
'07	—	—	—	—	—	—
'08	—	—	—	—	—	—
'09	—	—	—	—	—	—
1610	1/2s	6/s, 8/s	—	—	—	/4½s, /6s
'11	—	6/8s	—	—	—	/4s @ /4½s
'12	/10s	—	—	—	—	—
'13	—	—	—	—	—	/8s
'14	—	—	—	—	—	—
1615	—	—	—	—	—	—
'16	—	—	—	2/s	—	/5s
'17	/10s	3/8s	—	2/s	5/s	/6s @ /3s
'18	—	—	—	—	—	/5s
'19	—	5/4s	—	—	—	—
1620	—	2/8s (inferior)	—	—	—	—

Years.	Currants. (lb.)	Prunes. (lb.)	Figs. (lb.)	Dates. (lb.)	Almonds. (lb.)	Sugar. (lb.)	Rice. (lb.)
1582	—	—	—	—	—	—	—
'83	—	—	/3s	—	—	—	—
'84	—	—	—	—	—	—	—
'85	/3w	/3w	—	—	1/w	1/w @ 1/8w	/4w, /6w
1586 ..	—	/3½s	—	—	—	—	—
'87	—	—	—	—	—	—	—
'88	—	—	—	—	—	—	—
'89	—	—	—	—	—	—	—
1590	—	—	—	—	—	—	—
'91	—	/4s	/3½s	—	1/1s	—	—
'92	—	—	—	—	—	—	—
'93	—	—	—	—	—	—	—
'94	—	—	—	—	—	1/4s	—

TABLE C.—*Prices of Commodities in England, 1582-1620—Contd.*

Years.	Currants. (lb.)	Prunes. (lb.)	Figs. (lb.)	Dates. (lb.)	Almonds. (lb.)	Sugar. (lb.)	Rice. (lb.)
1595	—	$/4\frac{1}{2}s$	—	—	—	—	—
'96	$/5e$	$/5e$	—	—	$1/e$	$1/e$	—
'97	—	—	—	$2/e$	$1/1e$	$1/3\frac{1}{2}s @ 1/9e$	—
'98	—	—	—	—	—	$1/8e$	—
'99	—	—	—	—	—	—	—
1600	—	—	—	—	—	—	—
'01	$/4s$	$/3s$	—	—	—	—	—
'02	$/5\frac{1}{2}s$	$/3s$	—	—	—	—	—
'03	—	—	—	—	—	—	—
'04	$/6s$	$/4s$	—	—	—	—	—
1605	$/7s$	$/4s$	—	—	—	—	—
'06	$/6s$	$/3s$	—	—	—	—	—
'07	—	—	—	$2/s$	—	—	$/5e$
'08	—	—	—	—	—	—	—
'09	—	—	—	—	—	$/10\frac{1}{2}s$	—
1610	$/6s, 1/s$	$/3s$	—	$3/s$	$1/4s$	$1/10s, 2/s$	$/6s, /10s$
'11	$/7 @ /4\frac{1}{2}s$	$/3s$	—	—	—	$1/9s, 1/10s$	—
'12	—	—	—	—	—	$1/6\frac{1}{2}s$	—
'13	$/6\frac{1}{2}s$	—	$/4\frac{1}{2}s$	—	—	$1/8s @ 1/10\frac{1}{2}s$	—
'14	—	—	—	—	—	—	—
1615	—	—	—	—	—	—	—
'16	$/6s$	$/2s$	$2/s$	—	—	$1/2s$	$/3s$
'17	$/5\frac{1}{2}s @ /7s$	$/2s$	$/4s$	$2/s$	$1/3s$	$/11\frac{1}{2} @ 1/2$	$/3s$
'18	—	—	$/3s$	—	$1/6s$	$1/2s, 1/5s$	—
'19	—	—	—	—	—	$1/e$	—
1620	$/7s$	$/3s$	—	—	—	—	—

Years.	Lead. (Pother.)	Steel. (Faggot.)	Iron. (Ton.)	Tin or Soldier. (lb.)	Brass. (Stone.)	Ploughing.	
						Day.	Acres
1582	—	—	—	—	—	—	—
'83	—	—	$16/13/4s @ 8/13/4s$	—	—	—	—
'84	—	—	$13/13/4s$	—	—	—	—
'85	—	—	$14/-/s$	—	—	—	$1/3s$

TABLE C.—*Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.*

Years.	Lead. (Fother.)	Steel. (Ton.)	Iron. (Ton.)	Tin or Soldier. (lb.)	Brass. (lb.)	Ploughing.	
						Day.	Acre.
1586	9/14/2s	—	15/8/8s	—	—	—	1/11s
'87	—	—	—	—	/4s	/4s	1/2s, 1/3
'88	11/4/-½s	—	—	—	—	—	—
'89	—	—	—	—	—	/5s	—
1590	—	—	14/4/10½s	—	—	—	1/3s
'91	—	—	—	—	—	/5s	1/3s
'92	—	—	—	—	—	—	1/3
'93	—	—	12/-/-s	—	/6s	—	—
'94	—	—	—	—	—	—	—
1595	—	—	—	—	—	—	—
'96	—	—	—	—	—	—	—
'97	—	—	—	—	—	—	—
'98	—	—	—	—	—	—	—
'99	—	—	—	—	—	—	—
1600	—	37/-/-	{ 16/13/4s 18/10/-s (bars) 15/7/8 (flat) }	—	—	/2	—
'01 ...	7/17/-s	—	14/16/3s @ 15/16/8s	—	—	—	—
'02	—	—	12/10/-s	/6	—	—	—
'03	—	—	—	—	—	—	—
'04	8/9/-s @ 9/2/-s	—	—	—	—	—	—
1605	—	27/15/-	{ 12/-/-s (bars) 18/-/-s }	—	—	/3	—
'06	—	—	—	—	—	—	—
'07	—	—	—	—	—	—	—
'08	—	—	—	—	—	—	—
'09	—	—	—	—	—	—	—
1610 ...	—	—	18/6/8s	—	—	—	—
'11	—	—	—	—	—	—	—
'12	—	—	21/3/4s	—	—	—	—
'13	—	—	—	—	—	—	—
'14	—	—	—	—	—	—	—

TABLE C.—*Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.*

Years.	Lead. (Fother.)	Steel. (Ton.)	Iron. (Ton.)	Tin or Solder. (lb.)	Brass. (lb.)	Ploughing.	
						Day.	Acres.
1615 ...	—	—	—	—	—	—	—
'16 ...	—	—	—	—	—	—	—
'17 ...	—	—	15/13/4s, 12/-/-s	—	1/	/3	—
'18 ...	—	—	15/13/4s	—	/4	/3	—
'19 ...	—	—	—	—	—	—	—
1620 ...	—	—	—	—	—	—	—

Years.	Mowing or Reaping.		Threshing.		Thatching.		Unskilled Day.	Women's Day.
	Day.	Acres.	Day without Food.	Day with Food.	Day without Food.	Day with Food.		
1582 ...	—	—	—	—	—	—	—	—
'83 ...	—	1/6s	/4s	—	/4½s	—	/1½s, /2s	/1s, /1½
'84 ...	—	Oats 3/4s	—	—	/4½s	—	/1½s	/—½
'85 ...	—	—	—	—	—	—	—	—
1586 ...	/3	{ 1/6s, 3/8s, 3/2s	{ 3s, /5s, /6s	}	—	—	/1½, /2, /3	/1
'87 ...	—	3/4s	/7e	—	—	/2	—	/1s, /—¾
'88 ...	—	1/6s, 3/4s	—	—	/5s	—	—	/1s
'89 ...	—	—	/6s	—	—	—	—	—
1590 ...	—	3/8s	/6s	—	/7s	—	/4s	/4s
'91 ...	*/5s	—	—	—	/7s	—	—	/1½s
'92 ...	—	—	—	/2s	/6s	—	—	—
'93 ...	—	—	—	—	—	—	—	—
'94 ...	/3s	3/4s	/1s	—	—	—	/4s, /1s	/4s
1595 ...	/4e, /2e	—	—	—	/1e, /2e	—	/1s	/4s
'96 ...	—	—	—	—	—	—	—	/4s
'97 ...	—	—	—	—	—	—	—	—
'98 ...	—	3/4s	—	—	—	—	—	—
'99 ...	/5s	—	—	—	—	—	—	—
1600 ...	/3s	—	—	—	—	—	/2½s, /3	/1s
'01 ...	/4, /3	—	—	—	—	—	/2½, /1, /2	/2s
'02 ...	/3	2/8s	/6	—	/4	—	/2½	/2s
'03 ...	—	—	—	/2	—	—	/2	—
	/4, /3	—	—	—	/4	—	/2, /2½	—

TABLE C.—*Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.*

Years.	Mowing or Reaping.		Threshing.		Thatching.		Unskilled Day.	Women's Day.
	Day.	Acre.	Day without Food.	Day with Food.	Day without Food.	Day with Food.		
1605	/3, /3	3/	/4	—	—	—	/2, /6	—
'06	—	—	—	—	—	—	/2½, /3	—
'07	—	—	—	—	—	—	—	—
'08	—	—	—	—	—	—	London Gardener 1/	—
'09	—	—	—	—	—	—	London Gardener 1/	—
1610	—	—	—	—	—	—	—	—
'11	—	—	—	/2	—	—	/2, /3	/1
'12	—	1/6	—	/2, /3	—	—	—	/6
'13	—	1/6	—	—	—	—	/2	—
'14	—	—	—	—	—	—	—	—
1615	—	—	—	—	—	—	—	—
'16	—	—	/6	—	—	—	—	—
'17	/10	1/8	—	/2, /2½	—	—	—	—
'18	—	3/8, 1/8	/5	—	—	—	/3	/2
'19	—	—	—	—	—	—	/3	—
1620	—	—	—	—	/4	—	/3	/2

Years.	Ditching. (Rod.)	Carpenters. (Day.)	Masons. (Day.)	Smiths. (Day.)
1582	—	—	—	—
'83	—	/2½	—	/6, /3
'84	/4, /4½	—	—	—
'85	—	—	—	—
1586	/4	/4	—	/4
'87	—	/4	—	/5
'88	—	/4	/4	/4
'89	/7	—	/4	—

TABLE C.—*Prices of Commodities in ENGLAND, 1582-1620—Contd.*

Years.	Ditching. (Rod.)	Carpenters. (Day.)	Masons. (Day.)	Smiths. (Day.)
1590	/2½	/3	/4	/4
'91	—	/3	—	/8
'92	/3, /2, /1	—	/4	—
'93	—	/3e, /2e	/2½e, /2e	—
'94	—	/6, /4	—	—
1595	—	—	—	—
'96	—	/1e, /2e, /2½e, /4e	/2½e, /2e	/2e
'97	—	—	—	/6
'98	—	—	/4	/5
'99	—	—	—	—
1600	—	/4	/4, /5	/4
'01	—	/4	/4, /2½	—
'02	—	/3, /4	—	—
'03	—	/4, /5	/4½	/4, /5
'04	—	/3, /4, /6	/5, /6, /4½	/6
1605	—	/4, /4½, /6	/3, /4, /4½, /5, /9	—
'06	—	/6, /5	/6	—
'07	—	—	—	—
'08	—	—	—	—
'09	—	—	—	—
1610	—	/5e, /10e, /3e, /7e	{ /8, 1/, /5, /9, /5e, /10e }	—
'11	—	—	—	—
'12	—	—	—	—
'13	—	—	—	—
'14	—	—	—	—
1615	—	—	—	—
'16	—	—	—	—
'17	—	—	—	—
'18	—	/4	—	—
'19	—	/3, /6	—	—
1620	—	/6	/4	—

TABLE C.—*Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.*

Years.	Weavers.		Nails.		Paper. (Quire.)	Salt. (Bushel.)	Lime. (Bushel.)
	Piece.—Yard.	Day.	Horse- shoe, 1,000.	Double Spiking, 100.			
1582	—	—	—	—	—	—	—
'83	Canvass, yd. /— $\frac{3}{4}$	—	5/	/10	—	—	—
'84	Cloth. Flax. /— $\frac{3}{4}$ /1	—	—	—	—	—	/4s
'85	—	—	—	—	—	2/4w	—
1586	—	—	2/	—	—	—	—
'87	Blankets, yd. /— $\frac{3}{4}$	—	—	—	/4	—	—
'88	Canvass. /1, /— $\frac{3}{4}$, /— $\frac{3}{4}$	—	—	—	—	2/2s, 1/10s	—
'89	—	—	—	—	—	2/s	/7 $\frac{1}{2}$ s
1590	—	—	—	—	—	1/8s	—
'91	/— $\frac{3}{4}$, /1, /1 $\frac{1}{2}$	—	—	—	/3	—	/6 $\frac{1}{2}$ s
'92	—	—	—	—	—	1/8s, 1/10, 3/	/6 $\frac{1}{2}$ s
'93	—	/1	—	—	—	—	—
'94	—	—	—	—	—	1/8s	/6 $\frac{1}{2}$ s
1595	—	—	—	—	—	—	—
'96	—	/1s	—	—	/4	2/8s	/6 $\frac{1}{2}$ s
'97	Yd. flax Wool. /1 $\frac{1}{2}$, /2 $\frac{1}{2}$	—	—	—	—	2/e, 3/4s	—
'98	/4	—	—	—	—	2/8s, 3/4s	—
'99	—	—	—	—	/2	2/8s	—
1600	—	—	—	—	—	3/4s	/2 $\frac{1}{2}$ s, /3 $\frac{1}{2}$ s
'01	—	—	—	—	/4	3/9s, 3/9s, 3/4s	Carried. /3 $\frac{1}{2}$ s, /7
'02	—	—	—	/8	/4	2/6s	—
'03	—	—	—	1/	—	—	/3 $\frac{1}{2}$ s
'04	—	—	—	—	—	—	—
1605	Linem. /1, /1 $\frac{1}{2}$, /2	—	—	—	/4	—	/3s
'06	—	—	—	—	—	6/s, 6/3s	/4s
'07	—	—	—	—	—	—	—
'08	—	—	—	—	—	London. 1/8s	—
'09	Canvass. /1	—	—	—	—	—	—

TABLE C.—*Prices of Commodities in England, 1582-1620—Contd.*

Yards.	Weavers.		Nails.		Paper. (Quire.)	Salt. (Bushel.)	Lime. (Bushel.)
	Piece.—Yard.	Day.	Horse-shoe, 1,000.	Double Spiking, 100.			
1610	Canvass. /1	—	—	—	/4	—	—
'11	/1, /2	—	—	—	—	4/s	—
'12	—	—	—	—	—	—	—
'13	—	—	—	—	—	—	/3½
'14	—	—	—	—	—	—	—
1615	—	—	—	—	—	—	—
'16	—	—	—	—	—	—	—
'17	Fine. /8, /10	—	—	—	/4½, /4	5/10s	—
'18	Canvass. /1	—	—	—	/4	5/11s	/3½
'19	Wool. /3	—	—	—	—	—	/8s
1620	Flax. /6	—	—	—	—	—	/6½

Years.	Hides.	Skins.	Tar. (Gallon.)	Gun- powder. (lb.)	Pitch. (lb.)	Hair.		Rent of Land, Meadow. (Acre.)	Interest of Money (Per Cent.)
						Long. lb.	Short. (Stone.)		
1582	5/6, 5/8	—	—	1/4	—	—	—	10/, 9/, 6/	—
'83 {	11/, 14/, 6/8	}	1/1½	—	—	—	—	{ 10/, 13/, 10/8½ }	—
'84 ...	7/8								
'85	—	—	—	—	/3, /1½	—	/4	10/, 9/, 6/	—
1586	—	—	—	—	/3	—	—	13/	—
'87	—	—	1/6½	—	/2	—	—	7/4	—
'88	—	/5	—	—	/2	/4	—	14/3	—
89	—	—	—	—	—	/3	—	9/	—
1590 ...	—	—	—	1/4	/3	—	—	—	—
'91 ...	—	/8	—	—	—	—	—	—	—
'92	—	—	—	1/1	—	—	—	14/3	—
'93	—	—	—	2/8	—	—	—	Pasture. 4/3e	—
'94	17/6, 9/	/10½	1/2	—	/2	—	—	—	—

TABLE C.—*Prices of COMMODITIES in ENGLAND, 1582-1620—Contd.*

Years.	Hides.	Skins.	Tar. (Gallon.)	Gun- powder. (lb.)	Pitch. (lb.)	Hair.		Rent of Land, Meadow. (Acre)	Interest of Money. (Per Cent.)
						Long. (lb.)	Short. (Stone.)		
1595	—	—	—	—	—	/3	—	—	—
'96 ...	—	8 $\frac{3}{4}$	1/2	—	/2	—	—	14/	—
'97 ...	—	—	—	1/1 $\frac{1}{2}$	—	—	—	—	—
'98 ...	—	—	1/2	—	1 $\frac{1}{4}$	/3	—	—	—
'99 ...	—	—	—	—	—	—	—	—	—
1600	18/, 9/	—	1/4	—	—	—	—	14/3	—
'01 ...	—	—	—	—	/3	—	—	—	—
'02 ...	—	—	1/4	—	—	—	—	—	—
'03 ...	—	—	1/4	—	/2	—	/4	—	—
'04 ...	14/4	1/	1/4	—	/4	—	—	—	—
1605	—	—	1/4	—	—	—	—	—	—
'06 ...	—	—	1/4	—	—	—	—	—	—
'07 ...	—	—	—	—	—	—	—	—	—
'08 ...	—	—	—	—	—	—	—	—	—
'09 ...	—	—	—	—	—	—	—	—	Short. 21/12/-
1610 ...	—	—	—	—	—	—	—	—	Short. 8/17/3
'11 ...	—	—	1/4	1/	/4	—	—	—	10 per cent.
'12 ...	—	—	—	—	—	—	—	—	10 „
'13 ...	—	—	—	—	—	—	—	—	{ 25/, 8/6/8, 10 per cent.
'14 ...	—	—	—	—	—	—	—	—	—
1615 ...	—	—	—	—	—	—	—	—	—
'16 ...	—	—	—	—	—	—	—	—	10 per cent.
'17 ...	—	—	2/	—	—	—	—	—	10 8 per cent.
'18 ...	—	—	2/	—	—	—	—	—	8/4/-, 10 per cent.
'19 ...	—	—	—	—	/3	—	—	16/	10 „
1620 ...	—	—	1/8	—	/2 $\frac{1}{2}$	—	—	14/	8/7/6, 10 per cent.

**EFFECTS of COMPETITIVE APPOINTMENTS in the CIVIL SERVICE
of INDIA.**

THE following article is from a recent number of the "Friend of India." It will go a long way to dispose of any remaining scruples as regards the good effects of Competitive Appointments to the Indian Civil Service. The truth really is, that if India is to be retained at all by this country, it can only be by sending to it year by year young men who carry with them the latest and best results of our European training and cultivation.—ED. S. J.]

"The exclusive Civil Service of India owe their extinction to the obstinacy of their indulgent masters, the Court of Directors. First they were overtaken by the system of appointments by competition, and Haileybury, with the associations of half a century, was closed for ever. This would have been prevented, Haileybury might have been in existence, and the directors or their successors might still have possessed the cherished privilege of patronage, had the Court accepted the offer of Mr. Macaulay during the discussions on the Charter Act of 1833. Then it was proposed to allow the nomination by the directors of *four* candidates for every vacancy, and to choose the best of these by examination. Thus the area of selection would have been increased fourfold, the principle of emulation would have been introduced with all its healthy influences, young 'writers' would have been chosen superior in qualifications to the mass, the Court would have had the honour of having anticipated modern reforms in the safe use of the competitive system, and the sweets of patronage would have been preserved. But the directors were blinded, their opposition succeeded, and Macaulay returned to the charge at the next Charter Act discussion in 1854, and swept away nomination and patronage altogether.

"The revolution would have stopped here but for the increased blindness of the directors, which soon after ended in the extinction of the Company as a governing power. For every monopoly of which they were deprived they clung all the more convulsively to the remainder, and so they perished without pity. In March, 1856, when they would not allow the most distinguished uncovenanted judge in the country to hold a covenanted appointment, Lord Dalhousie told them they must then increase the strength of the Bengal Civil Service from 500 to 600, if he was to be responsible for the good government of the empire. The empire was daily growing, the regiments in the country were drained of their best officers to fill civil appointments, new names were given to old offices that uncovenanted officials might fill them, and thus an absurd, because inflexible, rule was evaded. Had the Court then kept up such a supply of young civilians that there would have been enough to fill every covenanted office in India, the Government here would never have dreamt of draughting so many military men and uncovenanted

servants into high civil offices. Lord Dalhousie wanted 100 additional writers, and the Court, 'admitting that some increase has become manifestly necessary,' promised him just 50. But the mutinies came, massacre and death were busy; there was a rush to England at the close of 1858, and the service, the *minimum* strength of which should have been 600, was reduced to 478.

"By the close of 1859 so gigantic was the evil that, out of 118 covenanted civil appointments in the Punjab, only 43 were filled by *civilians*, and 71 by military or uncovenanted officials. In Oude there were only 10 civilians, while there were 26 military or uncovenanted officials in covenanted appointments. Mr. Edmonstone protested against any more North-West civilians being draughted to the non-regulation provinces. Not a man could be found in Bengal to fill five vacancies in Oude and the Punjab. Nagpore was short of officers. At last 6 young civilians were transferred from Bombay, the only place, as the law now stands, from which they could be taken to another Presidency than their own. Still the evil grew; the regulation provinces were not benefited; Mr. Grant was creating more subdivisions in Bengal, and at last Lord Canning was forced to stop furloughs and to make a proposal, in which Sir Bartle Frere concurred, but which shocked Mr. Beadon, 'that a certain number of appointments to the Civil Service be thrown open to competition by young officers of the Indian forces who are now in India.' Lord Canning would have made thirty such appointments. This would have opened the regulation provinces to the unemployed officers of the absorbed Indian army as effectually as the Punjab, Oude, and Pegu. Trained men, with some Indian experience, must be found to direct the administrative details of an empire which Lord Dalhousie had extended to its natural frontiers. Thus, because the Court of Directors rejected a modified competitive system which would have retained patronage in 1838, all patronage was taken from them in 1854. Because they would not give Lord Dalhousie 100 extra civilians in 1856, and reproved him for the crime of allowing Mr. Halliday to put an old uncovenanted judge in a civilian's seat, the Civil Service monopoly of office has been extinguished, and any Governor may appoint any man to any office under certain wise and just safeguards.

"The service thus exhausted is now being partially revived by throwing open 80 vacancies to competition in *each* of the years 1860, 1861, and 1862, instead of 40 as formerly. In 1856 the first set of *competitive civilians* landed in India. The forty men of 1859 are now being appointed as assistants in Bengal and the North-West. There is no official, from the Governor-General down to the district officer, who has not expressed his satisfaction with his competitive subordinates, with only a few exceptions. The superiority of the new men, as industrious, conscientious, and able officers, is as undoubted as the fear that they would be mere bookworms has proved unfounded. The competitor whose whole life has been spent in the schools and the hands of examiners pants for the day when he shall be invested with full powers, having past his last examination, with a degree of intensity which the mass of the Haileybury men, who merely sipped at knowledge, cannot feel.

"The reports of the Civil Service Commissioners show that it is not the first class university men, of brilliant parts and undoubted genius, who are tempted to come out to India, and whom disgust would soon convert into miserable failures, but youths of ordinary abilities, developed by untiring industry and high class training. If India was the empire of the middle classes when the Company was in its glory, it is still more so now that a new stratum of that society has been pierced, which is untainted by the family inter-mixtures that make men physically and intellectually effete.

"The following list of the professions of the *fathers of the successful candidates of 1859 and 1860* shows how few sons of Haileybury civilians now enter the service by competition, where they only not long ago would have been admitted to it by patronage:—

	1859.	1860.		1859.	1860.
Officer in the Queen's Army.....	—	2	Farmer	1	1
Ditto in the Indian Army.....	1	—	Ironmonger	—	1
Ditto in the Navy.....	—	3	Land Agent	1	1
Ditto in the Militia	—	1	Merchant	1	7
Ditto in the French Army.....	—	1	Organist	—	1
Indian Civil Service	2	2	Printer	—	1
Home ditto	—	2	Professor in College.....	2	1
Colonial ditto	—	1	Schoolmaster	2	1
Church Clergyman	9	16	Steward	—	1
Wesleyan ditto	2	—	Undertaker	—	1
Presbyterian ditto	1	—	Wine Merchant.....	—	1
Law	2	3	Manufacturer	1	—
Medicine	4	10	Miller	1	—
Gentleman.....	6	11	Registrar of diocess	1	—
Banker	—	2	Secretary to public society	1	—
Butcher	—	1	Upholsterer	1	—
Civil Engineer	—	1	Tailor	1	—
Linendraper	—	1	Not named	—	5
Druggist	—	1	Total	40	80

"All these 120 youths came fresh from college, with the exception of ten, one of whom had been a barrister, one had been reading for the bar, one had been an engineer, one had been a militia lieutenant, two had been merchants' clerks, and four had been schoolmasters. Since this is the class which provides India with civilians, and since England is stocked with university men of the same calibre, we are not of those who anticipated that the opening of the service to *tried officers already in India* will materially diminish the number and value of candidates in England. Still less will this be the case under the new form which the Civil Service Bill assumed as finally passed by the Commons. Sir Charles Wood so far yielded to the representations of Mr. Vansittart and the existing Service as to state in the body of the Bill, that to the great bulk of the covenanted appointments, a list of which is given, *no outsider* shall be appointed who has not resided *seven years* in India, and has not passed an examination in the vernacular of the district and all the local and depart-

mental tests. Under this stringent rule jobbery becomes impossible, the admission of experienced uncovenanted officers will be very rare, and the full rights of competitive civilians are secured in a manner which may sometimes prove detrimental to the interests of the State. Thus, while the Bill seems to carry out Lord Canning's suggestion, it will probably shut the door against the Staff Corps, from which the service might otherwise have been inundated; for there are few officers of seven years' standing who will consent to pass the two professional examinations to which civilians are subjected. Still, with the Finance and Customs' Departments and the Military, Marine, and Public Works Secretariats open to the best men, with the second-class youth of the home universities pouring out to India, and with the Staff Corps monopolizing nearly all the non-regulation provinces, we may after a few years expect to find the Civil Service of India distinguished for vigour and intellect, freshness of thought, and zeal in the service of the public which no mere monopoly, however able, could long continue to display."

BRITISH ASSOCIATION, 1861.

THIRTY-FIRST Meeting of the BRITISH ASSOCIATION for the Advancement of Science, held at MANCHESTER, 4th—11th September, 1861.

Section (F).—Economic Science and Statistics.

President.—WILLIAM NEWMARCH, F.R.S.

Vice-Presidents.—William Farr, M.D., F.R.S., D.C.L.; James Heywood, F.R.S.; Lord Montagu; Alderman Neild; Right Hon. Joseph Napier; Edwin Chadwick, C.B.; Daniel Noble, M.D.; Rev. Canon Richson, M.A.; Colonel Sykes, M.P., F.R.S.; W. N. Massey, M.P.; William Tite, M.P., F.R.S.

Secretaries.—Rev. J. E. T. Rogers, M.A., Tooke Professor; Edmund Macrory, M.A.; R. C. Christie, M.A.; David Chadwick, F.S.S., Assoc. Inst. C.E.

Committee.—Edmund Ashworth; Henry Ashworth; James Aspland, M.D.; Thomas Bazley, M.P.; C. H. Bracebridge; Samuel Brown; William Camps, M.D.; John Cheetham; Richard Fort; J. Franklyn; Henry Fawcett; Robertson Gladstone; S. Gregson, M.P.; The Lord Provost of Glasgow; James T. Hammack; Frederick W. Haddon; Right Hon. T. E. Headlam, M.P.; Edward Herford; Edwin Hill; William Langton; Rev. A. Hume, D.C.L.; The Mayor of Manchester; James McConnel; James McClelland; Horace Mann; Rev. W. N. Molesworth, M.A.; Alfred Neild; Captain Palin; Edmund Potter; Arthur Moore, F.S.S.; Frederick Purdy; H. D. Pochin, F.C.S.; Malcolm Ross; John Shuttleworth; R. J. Spiers; Right Hon. Lord Stanley, M.P.; John Strang, LL.D.; N. M. Tartt; John Watts, Ph.D.; William Westgarth; Robert Wilkinson, L.C.P.; Thomas Wilson, M.A.; Cor. Van der Maeren.

The following Papers occupied the attention of the Section :—

Thursday, 5th September, 1861.

T. Bazley, M.P.—A Glance at the Cotton Trade.

Alderman Neild.—On the Price of Printing Cloth and Upland Cotton from 1812 to 1860.

John Strang, LL.D.—On the Altered Condition of the Embroidery Manufacture of Scotland and Ireland since 1857.

Henry Ashworth.—On the Connection of Improvements in Cotton Bleaching, with Improvements in the Condition of the Factory Population.

Professor Rogers, M.A.—Prices in England, 1582-1620, and the effect of the American Discoveries upon them during that Period.

Friday, 6th September, 1861.

The President delivered the Opening Address (adjourned from yesterday).

David Chadwick.—On the Progress of Improvements in Manchester and Salford during the last Twenty Years.

J. Watts, Ph.D.—On Strikes.

Edmund Potter, F.R.S.—On Co-operation and its Tendencies.

Daniel Stone, F.C.S.—On the Rochdale Co-operative Societies.

Rev. W. E. Thorburn, M.A.—Co-operative Stores: their Bearing on Athenæums, &c.

Rev. W. N. Molesworth.—On the Progress of Co-operation at Rochdale.

Saturday, 7th September, 1861.

John Shuttleworth.—Some Account of the Manchester Gasworks.

Miss Twining.—On the Employment of Women in Workhouses.

Colonel Sykes, M.P., F.R.S.—Notes on the Progress and Prospects of the Trade of England with China since 1833.

Frederick Purdy.—On the Relative Pauperism in England, Scotland, and Ireland, 1851-1860.

William Westgarth.—The Commerce and Manufactures of the Colony of Victoria.

William Farr, M.D., D.C.L., F.R.S.—On the Recent Improvements in the Health of the British Army.

J. T. Danson.—On the Growth of the Human Body in Height and Weight in Males from 17 to 30 years of age.

Monday, 9th September, 1861.

William Newmarch, F.R.S.—On the Extent to which Sound Principles of Taxation are at present embodied in the Legislation of the United Kingdom.

Professor J. E. T. Rogers, M.A.—On the Definition and Incidence of Taxation.

O. E. Macqueen.—The True Principles of Taxation.

W. Clarke, M.D.—On a Revision of National Taxation.

Rev. Canon Richson, M.A.—The Income Tax.

Richard Valpy.—The Commercial Relations between England and France.

H. J. Ker Porter.—To present Engravings of Farm Labourers' Cottages, with a Specification, and a few Remarks in continuation of a Paper read at Oxford in 1860.

Mrs. Fison.—On Sanitary Improvements.

Rev. W. Caine.—Ten Years' Statistics of the Mortality amongst the Orphan Children taken under the care of the Dublin Protestant Orphan Societies.

Charles Thompson.—On some Exceptional Articles of Commerce and Undesirable Sources of Revenue.

Tuesday, 10th September, 1861.

James Heywood, F.R.S.—On the Inspection of Endowed Educational Institutions.

Captain Donnelly, R.E.—On the Government System of Examinations in Science.

J. T. Hammack, F.S.S.—On the General Results of the Census of the United Kingdom in 1861.

John Strang, LL.D.—Comparative Progress of the English and Scottish Population, as shown by the Census of 1861.

T. A. Welton.—An Examination of the Increase and Decrease of Population in England and Wales, 1851-61.

R. H. Bakewell, M.D., M.B.C.S.—On the Influence of Density of Population on the Fecundity of Marriages in England.

Rev. A. Hume, D.C.L.—On the Condition of National Schools in Liverpool, as compared with the Population, 1861.

Henry Fawcett, M.A.—On the Economical Effects of the recent Gold Discoveries.

Professor J. E. T. Rogers, M.A.—Can Patents be Defended on Economical Grounds?

Henry Ashworth.—On Capital Punishments and Crime.

MISCELLANEA.

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I.—*Bank of France, October, 1861, its Position and Policy.*

THE following is the Abstract given by the *Times* of the 25th October, (1861), of an elaborate article in the *Journal des Débats*.

"The position of the Bank of France is discussed by the *Débats* in an article of considerable length. Although the deficiency of the harvest is not considered by the writer as the sole cause of the drain of specie which has been going on for some time, and has forced the Bank to raise its interest and have recourse to other exceptional measures, yet a necessity exists to pay in gold or silver for the 4,125,000 or 5,155,000 quarters of wheat which are required for the year's food. The *Débats* is of opinion that means may be devised to lessen the force of the outward current, and cites the precedent of 1847, when the Russian Government, it may be remembered, purchased from the Bank of France 50 millions of rente, and by so doing relieved that establishment rapidly from its temporary embarrassment.

"'Among the economic crises of the last 30 years,' says the writer, 'it is that which presents the greatest resemblance to the present one. It was then, as now, to the purchasers of corn, necessitated by an insufficient harvest, that the drain of specie was specially ascribed. Of 8,200,000*l.*, of which the metallic reserve of the Bank of France consisted on the 1st of October, 1846, there only remained on the 14th of January, 1847, 3,440,000*l.*, of which 1,120,000*l.* were in the branch banks. At London, 1,000,000*l.* of gold were purchased at a sacrifice of 32,008*l.* for exchange, interest, and expenses. With some difference in the manner of proceeding, the operation was the same which the Bank of France made a few days back through some large banking firms of Paris. In 1847 the operation produced a good effect, the metallic reserve on the 16th of March having risen to 4,400,000*l.* It was at that moment that the Court of Russia proposed to the Bank of France to purchase from it, at the rate of the day, 2,000,000*l.* of its Five and Three per Cents. The proposition, after a little hesitation, was accepted. The Bank gave to the Imperial treasury of Russia, 80,000*l.* of Five per Cents., at 4*l.* 18*s.*, and 5,680*l.* of Threes, at 3*l.* 4*s.*, forming together a capital of about 2,000,000*l.* The operation, while permitting the saving of the greater part of the specie which

would have had to be sent into Russia to pay for the purchase of wheat, had an excellent effect on the metallic reserve of the Bank. The latter was slowly recomposed, and attained in August the sum of 5,960,000*l.*; and on the 25th of December, 1857, it was 6,840,000*l.*, a sum considered perfectly sufficient at that epoch, when the operations of the Bank were far from having acquired the immense development which they owe to the increase of business for the last ten years. The alienation of 2,000,000*l.* of public funds deprived the shareholders at one blow of an assured income of 85,680*l.* The Bank, nevertheless, was able to distribute to them a dividend of 7*l.* 1*s.* 6*d.*, which was the largest up to that time. Moreover, before the end of the same year, 1847, the Bank had reconstituted the greater part of its rentes on more advantageous terms (Three per Cents. at 3*l.* -s. 2*d.* and 3*d.*) than those on which it sold them.

"The moment could not be better chosen. With the fall in silver, probably only temporary, the Russian Government would obtain ingots on better conditions than those which it had to accept at the beginning of the year, but which are not likely soon to be made to it again; moreover, it would not have to pay in gold this lower price, as it did for the 1,240,000*l.* of which the coining is now being brought to a close; it could give France, in return for her silver, merchandise which is at this moment much more necessary than gold—it could pay in wheat. The last harvest in Russia was more than satisfactory, in spite of the perturbation which the emancipation of the serfs must have temporarily caused in agriculture. Of the 4,125,000 to 5,155,000 quarters of wheat which France will have to demand abroad, Russia can supply the third, perhaps even the half. So much the better for her and for France. But here is the reverse of the medal. In purchasing wheat from Russian producers, France must pay for it in cash, in great part even before having received it; and that is the cause of the severe and sudden drain of specie from France. On the other hand, the 4,000,000*l.*, for example, which France would send to Russia in good pieces of 4*s.* 2*d.* or in ingots would disappear from that country in the same way, and for the same reasons, as for some years past. The operation would result in a great embarrassment for French circulation, without any appreciable advantage for Russian circulation. The Government of St. Petersburg may, however, remedy that inconvenience with facility and safety. The 4,000,000*l.* in specie (to continue to speak in round figures) which the insufficiency of the French harvest requires to be sent to Russia, are for her (on account of her serious need of money), so to speak, a happy accident."

"But a similar operation could not be repeated at present, the writer declares; the financial situation of Russia, which has become greatly deteriorated since 1847, not permitting her to sink a large capital in foreign funds. But a different arrangement could be entered on, the *Débats* thinks, and with advantage to both parties. At the beginning of the present year the Bank of France, after having effected a similar operation in London, asked the Russian Government to cede to it about 1,240,000*l.* of gold for so much silver, and the Government of St. Petersburg at once consented, silver then appearing of more value. But the Bank soon after discovered that the comparative value of the two metals had changed, and that there was no longer any good reason for refusing silver coin to the public, all premium on it having ceased to exist. The Bank then discontinued paying 4*s.* 2*d.* pieces to Russia, and simply sent silver ingots. But, although the operation was sterile for the Bank, it turned out of great utility to Russia, who had the whole mass of silver delivered to the Mints of Paris and Strasbourg, and there transformed into Russian pieces, with an intrinsic value of 15 per cent. below the nominal one, the object being to prevent in that manner the practices of exportation or of melting down, which had previously drawn away from Russia, as from Austria, all her silver money. The whole sum will amount nominally to somewhat over 1,320,000*l.*; but that sum is totally inadequate for a population of 62,000,000 inhabitants, and having a paper currency of 700,000,000 roubles. Why should not Russia, the *Débats* asks, continue that operation on a still larger scale? Its argument runs thus:—

“The Government of St. Petersburg might come to an understanding with the producers of Russian wheat to substitute itself to them as the creditor of France; it might demand from them credits spread over a year, or pay them in notes of the State Bank, or in new 4 per cent. bills. In their place it might receive from the Bank of France the 4,000,000*l.* in specie which France owes for Russian wheat; but it would give to that silver the same destination as the 1,240,000*l.* of silver which it recently exchanged for gold. By making efforts, which, however, they considered somewhat excessive, the Mints of Paris and Strashourg were able, from July to October, to deliver per month 320,000*l.* in Russian small coin; the coining of the new 4,000,000*l.* would, therefore, require a year. The new money would thus arrive by degrees at its destination, to replace in the centre of the empire that which little by little would spread towards the circumference, so that the circulation of all European Russia would, in a year from this time, be provided with the specie of which it is now in complete want. On its part, the Bank of France, which would supply ingots to the French Mints, in proportion to their progress in the manufacture, would not be inconvenienced by an issue of 4,000,000*l.* spread over an entire year. The issue would also be insensible if it were made in six months only, supposing that the coining could and should be forced so as to supply monthly double the quantity of specie produced in the coining of the first 1,240,000*l.* The operation proposed would, it seems to us, sensibly lighten for France the burden of the crisis, while producing great advantages for Russia. Will that suffice to recommend it to the attention of those whom it may concern? ”

II.—*American Cotton Crops and Prices, 1857-61.*

“THE annual statement of the United States' crop, made up by the (New York) *Shipping and Commercial List*, which has been delayed in consequence of the internal disruption, is as follows:—The *total crop* for the year is 1,013,684 bales *less* than for the previous year, and 195,395 bales *less* than 1859, but with these two exceptions it is larger than any former crop on record.

“We annex our usual summary, specifying the points where received, and showing in a general way the crops of the several States, although the cotton made in one State is frequently shipped through the ports of another. During the last year 393,499 bales were received at Memphis, Nashville, and Columbus; part of these were sent to New Orleans, part manufactured on the Ohio, and the remainder sent northward to market:—

Receipts of Cotton at the Ports of the United States.

	1860-61.	1859-60.	1858-59.	1857-58.
New Orleans	1,755,599	2,139,425	1,669,274	1,576,409
Mobile	546,794	843,012	704,406	522,364
Florida	127,172	192,724	173,484	122,351
Texas	144,747	252,424	192,062	145,286
Georgia	477,584	525,219	475,788	282,973
South Carolina	336,339	510,109	480,653	406,251
North „	46,295	41,194	37,482	23,999
Virginia, &c.	221,556	165,663	118,332	34,329
Total crop ... <i>barrels</i>	3,656,086	4,669,770	3,851,481	3,113,962

“The *total export* to foreign ports for the year just closed were 3,127,568 bales, as shown in the annexed table:—

Total Exports of Cotton from the Ports of the United States to Foreign Ports.

	1860-61.	1859-60.	1858-59.	1857-58.
To Great Britain	2,175,225	2,669,432	2,019,252	1,809,966
„ France	578,063	589,587	460,696	384,082
„ North of Europe ...	216,250	295,072	330,012	215,145
„ other foreign ports	158,030	220,082	221,443	181,342
Total <i>bales</i>	3,127,568	3,774,173	3,021,403	2,590,455

“The bulk of the *decrease*, as compared with last year, has been in the shipments to Great Britain.

“The following will show the stock of cotton (in bales) on hand at the different ports of the United States on the 1st September :—

Stock of Cotton on Hand in the United States.

	1861.	1860.	1859.	1858.
New Orleans	10,118	7,393	26,022	30,230
Mobile	2,481	41,682	20,106	10,495
Florida	7,860	864	236	80
Texas	452	3,168	2,655	1,899
Savannah and Augusta	9,093	9,559	18,383	2,585
Charleston	2,899	8,897	17,592	11,715
Virginia, &c.	2,000	4,509	375	600
New York	37,229	64,891	43,452	25,000
Other Northern ports	11,055	20,404	20,416	20,322
Total <i>bales</i>	83,187	227,708	149,237	102,926

“The *consumption* of the United States is reached by deducting the exports and stock on hand from the known receipts to show the consumption in the Northern States, and by estimating the consumption in the Southern States. The following will show the *total* of the *Crop* and the *estimated consumption* for the last thirty-two years :—

Total Crop of Cotton, and the Consumption in the United States.

[Unit 000's omitted, thus 126 = 126,000.]

Year.	Domestic Consumption.	Total Crop.	Year.	Domestic Consumption.	Total Crop.
1829-30	126,	976,	1845-46	422,	2,100,
'30-31	182,	1,038,	'46-47	427,	1,778,
'31-32	173,	987,	'47-48	616,	2,347,
'32-33	194,	1,070,	'48-49	642,	2,728,
'33-34	196,	1,205,	'49-50	613,	2,096,
'34-35	216,	1,254,	'50-51	485,	2,355,
'35-36	236,	1,360,	'51-52	699,	3,015,
'36-37	222,	1,422,	'52-53	803,	3,262,
'37-38	246,	1,801,	'53-54	737,	2,930,
'38-39	276,	1,260,	'54-55	706,	3,847,
'39-40	295,	2,177,	'55-56	770,	3,527,
'40-41	297,	1,634,	'56-57	819,	2,939,
'41-42	267,	1,683,	'57-58	595,	3,113,
'42-43	325,	2,378,	'58-59	927,	3,851,
'43-44	346,	2,030,	'59-60	972,	4,669,
'44-45	389,	2,394,	'60-61	843,	3,686,

"The consumption of the *South*, 174,390 bales (including that burnt at the ports), is to be added to the crop receipts to make the total production. If this be done, and we add stocks in interior towns, and deduct the portion of the new crop received before 1st September (300 bales), we shall make the total growth of cotton the last year in the United States 3,866,000 bales.

"We bring forward a description of the course of Prices at New York. Beginning at 15½c. for middling upland, September 1, 1857, the market through the fall months (the season of financial revulsion) was mostly nominal, and on January 1, 1858, touched 8½, a *fall* of nearly 50 per cent. It then almost immediately recovered, running along up to 12, and ranging from 11½ to 12½, mostly 12½ to 12¾, during the remainder of that commercial year.

"On the 1st of September, 1858, the market opened at 12½, touched 13½ before the close of the month, fell to 11½ in November, recovered to 12, where it remained during most of the winter, and then ranged from 10½ to 12½ for the remainder of that season, closing at 11½ the 1st of September, 1859.

"Beginning at 11½ the 1st of September, 1859, the market gradually dropped to 11c. in December, and opened the year 1860 at that rate. It fluctuated very slightly, ranging from 11 to 11½, until the close of June, when it touched 10½ and fluctuated between 10½ and 10¾ for the remainder of the season, closing at 10¾ on September 1, 1860.

"Beginning at 10¾ on September 1, 1860, it touched 11 a few days after, then fell back to 10¾, if not below it; but soon after rallied, and before the close of October, reached 11½. About the middle of November it again dropped, and by the first week in December touched 10c. That was the lowest point of the season, and if we except a slight reaction in February, 1861, it gained steadily throughout the year, closing on the 1st of September at or about 22c., which is the highest point it ever reached in 'our times.'"

III.—Censuses of the United Kingdom, 1801-61.

The following abstract and summary of the Seven Censuses, 1801-61, will be found useful.

Census.	England and Wales.					
	Males.	—	Females.	—	TOTAL PERSONS.	—
	Mins.	Incr. p. ct.	Mins.	Incr. p. ct.	Mins.	Incr. p. ct.
1801.....	4,25	—	4,63	—	8,89	—
'11.....	4,87	14	5,29	14	10,16	14
'21.....	5,85	20	6,14	16	12,00	18
'31.....	6,77	16	7,12	16	13,89	16
1841.....	7,77	14	8,13	14	15,91	14
'51.....	8,78	13	9,14	13	17,92	13
'61.....	9,75	11	10,30	12	20,06	12

Census.	Scotland.					
	Males.	—	Females.	—	TOTAL PERSONS.	—
	Mins.	Incr. p. ct.	Mins.	Incr. p. ct.	Mins.	Incr. p. ct.
1801.....	,73	—	,86	—	1,60	—
'11.....	,82	12	,97	12	1,80	12
'21.....	,98	19	1,10	13	2,09	16
'31.....	1,11	13	1,24	13	2,36	13
1841.....	1,24	11	1,37	10	2,62	11
'51.....	1,37	11	1,51	10	2,88	10
'61.....	1,44	5	1,61	7	3,06	6

Census.	Ireland.					
	Males.	—	Females.	—	TOTAL PERSONS.	—
	Mins.	Incr. p. ct.	Mins.	Incr. p. ct.	Mins.	Incr. p. ct.
1801.....	*—	—	—	—	—	—
'11.....	—	—	—	—	—	—
'21.....	3,34	—	3,45	—	6,80	—
'31.....	3,79	13	3,97	15	7,76	14
1841.....	4,01	6	4,15	5	8,17	5
		Decr.		Decr.		Decr.
'51.....	3,19	20	3,36	19	6,55	20
'61.....	2,80	12	2,95	12	5,76	12

* First Census of Ireland taken in 1821.

IV.—Extent and Value of the Trade between England and France, 1674.

THE following curious account and estimate is copied, by permission, from a quarto broadside in the possession of James Anderton, Esq., so well and favourably known as the Manager of the London Office of the West of England Insurance Company.

“ London, 29 Nov. 1674.

“ A scheme of the trade as it is at present carried on between *England* and *France* in the commodities of the native product and manufacture of each country, calculated as exactly as possible, in obedience to the command of the Right Honourable the Lords Commissioners for the Treaty of Commerce with *France*, and humbly tendered to their Lordships.

ntities.	Commodities Exported from England into France.	Amount of Particulars.	Total Amount of Exports.
	<i>Woollen and Silk Manufactures.</i>		
	£ s. d.	£ s. d.	£ s. d.
354	Pieces of Norwich stuff at 2 - - per piece	708 - -	
564	„ serge and perpetuanas „ 2 10 - „	13,910 - -	
288	„ single bayes „ 2 10 - „	5,764 - -	
166	Small minikin bayes „ 6 - -	996 - -	
466	„ double bayes „ 4 - -	1,864 - -	
140	Dozen men's worsted hose „ 2 - -	4,280 - -	
832	„ „ „ 1 5 -	1,040 - -	
170	„ of children's hose „ - 8 -	468 - -	
400	Yards of flannel „ - 1 -	20 - -	
200	⊕ goads of cotton „ 9 - -	10,800 - -	
112	Long cloths „ 10 - - per cl.	1,120 - -	
42	Short „ „ 8 - - „	336 - -	
829	Spanish cloths „ 15 - - „	12,435 - -	
97	Double northern dozens „ 5 - -	485 - -	
69	Single „ „ 2 - -	138 - -	
13	Devon dozens „ 2 - -	26 - -	
173	Cloth rashes „ 5 - -	865 - -	
6	Pennystons „ 3 - -	18 - -	
585	Kersies „ 1 15 -	6,273 - -	
960	lb. English wrought silk „ 2 - -	1,920 - -	
		63,466 - -	
	This is the full of what was exported, according to the Custom House books in the Port of London, from Michaelmas 1668 to Michaelmas 1669, and for all England we calculate one-third part more. Amounts in all to	—	84,621 6 8
	Since 1669 the exports, as we conceive, are diminished, and not increased.		
500	Fodder of lead at 12 - - per fodd.	30,000 - -	
000	Hundred of tin „ 4 - - per cwt.	24,000 - -	
100	Tuns of allom „ 24 - - per tun.	2,400 - -	
	Calves skins and leather.....	10,000 - -	
	Several sorts of skins, glew, lanthorn-leaves, butter, copperas, old shoes, sea-coals, tobacco-pipes, gloves, red-lead, linseed, candles, iron ware, haber- dashery ware, and other trivial commodities, which may amount per annum to.....	20,000 - -	
			86,400 - -
			171,021 6 8

Quantities.	Commodities Exported into England from France.		Amount of Particulars.	Total Amount of Imports
<i>Linnen and Silk Manufactures.</i>				
		£ s. d.	£ s. d.	£
60,000	Pieces of Lockram and Dowlas ... at 6	- - per piece	360,000	- -
17,000	Hundred of Vitry and Noyals } canvas	„ 6 - - per hund.	102,000	- -
5,000	Hundred of Normandy canvas ... „ 7	- - „	35,000	- -
2,500	Pieces of quintins	„ 10 - - per piece	1,250	- -
1,500	„ dyed linnen	„ 1 - - „	1,500	- -
7,604	Yards of diaper, tabling	„ 2 - - „	760	- -
33,896	„ napkining	„ 1 - - „	1,694	16 - -
1,376	Dozen of buckrams	„ 2 10 - - „	3,440	- -
1,200	Bolts of poldavies	„ 15 - - „	900	- -
2,820	Pair of old sheets	„ 5 - - „	705	- -
150,000	Pound of wrought silk	„ 2 - - „	300,000	- -
<i>Note.</i> —That this year, 1874, there hath been received at the Port of Dover only as we are informed, 15,000 <i>l.</i> for Custom of wrought silk: so that considering what may be conveyed away privately, and that great quantities are worth from 3 <i>l.</i> to 4 <i>l.</i> the pound, we believe the wrought silk may amount to much more in value than what is above.				807,250
11,000	Tuns of French wine, one year with another	} cost 12 10 - per tun at 20 - - „	137,500	- -
4,000	Tuns of brandy, one year with another		80,000	- -
160,000	Reams of paper	„ - 5 - per rm.	40,000	- -
1,500	Pcs. of pruens	„ 4 - - „	6,000	- -
400	Hundred of feathers	„ 5 - - per hund.	2,000	- -
5,000	„ kidskins	„ 3 - - „	15,000	- -
3,000	Weigh of salt	„ 2 - - per wgh.	6,000	- -
6,000	Hundred of rosin	„ 8 - per hund.	2,400	- -
Vinegar, rape, cyder, wadd, cork, oakum, soap, turpentine, capers, olives, brignoles, parchment, window-glass, teasels, corn, fanna, basket rods, box wood, and cremor tartar, which may amount, <i>per annum</i> , at least to			40,000	- -
				111,400
Besides all manner of toys for women and children, fanna, jessamin gloves, laces, point-laces, rich embroidered garments, and rich embroidered beds, and other vestments, which are of an incredible value.				4,186,150

“ By the account above, your Lordships may perceive that the linnen and silk manufactures only imported from *France* amount to upwards of eight hundred thousand pounds, and the manufactures of wool and silk exported from *England* thither do not amount to eighty-five thousand pounds. As also all other commodities of the product and manufacture of *England* exported into *France* do not amount to ninety thousand pounds more: whereas the wines, brandies, and other commodities of the product and manufacture of *France* imported into *England* amount to three hundred and twenty thousand pounds, besides an incredible value of toys, rich apparel, point-lace, &c. So that it is apparent that the exports of our native commodities and manufactures to *France* are less in value by at least one million of pounds sterling than the native commodities and manufactures of *France* which we receive from thence. And if it please your Lordships to reflect thereupon,

your Lordships will easily discern the great prejudice the *English* nation hath sustained, and the great advantage the *French* have, and do daily make, by holding this treaty in suspense; this nation being upon the matter excluded trade thither, while in the meantime the *French* enjoy all and as great advantages as they can reasonably expect by any treaty.

"PATIENCE WARD,
"THOMAS PAPILLON,
"JAMES HOUBLON,
"WILLIAM BELLAMY,
"MICHAEL GODFREY,

GEORGE TORRIANO,
JOHN HOUBLON,
JOHN HOUGHE,
JOHN MEEVIN,
PETER PARAVICINE,

JOHN DUBOIS,
BENJ. GODFREY,
EDM. HARRISON,
BENJ. DELAUNE."

V.—*The Coal Fields and Coal Trade of India.*

WE obtain the following from a recent number of the *Friend of India*.

"When reviewing the operations of the geological survey, some two years ago, we asked if it were not possible to collect mining statistics in India, similar to Mr. Hunt's valuable records published from time to time in England. It unfortunately happens that India is the despair of the statist. Figures collected in India, unless only by Europeans and relating to Europeans, are valueless except for very general purposes. Any attempt to obtain statistical information from a *native*, if conducted by a European officer, is at once regarded as a preliminary to taxation of some sort, and is met by a refusal or by deceit; while, if made by native agency, it becomes a source of gross oppression, and the result is ludicrously inaccurate. What is called the census of India, for instance, which fixes the population of the British territory at 132,000,000, was taken very much in this way:—The police were called on for a return of the number of houses and huts in each town, and the whole was multiplied by five to represent the population.

"Notwithstanding the difficulty, however, Mr. Oldham, the able and zealous director of the Geological Survey of India, has collected and published the first of a series of *mineral statistics*. The returns refer to *coal*, and will be followed, we trust, by similar information regarding iron, copper, lime, building stone, slate, gold dust, and precious stones. Mr. Oldham does not pretend that his first attempt is free from errors. But he did his best, going from pit to pit, cross-questioning the superintendents and making inquiries of the proprietors and agents of the several companies. He has succeeded in giving us figures for three years from the 1st of October, 1857, to the same date in 1860, all accounts being made up to this period, known as the 'coal year,' from the circumstance that before the construction of the railway all the Raneeunge coal was sent down the river Damooda, so long as its waters, swollen by the rains, permitted the transit.

"The result is not a cheering one for India. Over the vast peninsula, which has an area of 800,000 square miles, coal is found only in the valley of the Ganges and neighbouring hills, in Rewah to the south of the Soane, in the Nerbudda valley, and in the Sylhet hills on the far north-east. There is *no workable coal elsewhere in the North-Western Provinces*, none in Oude, the Punjab, Scinde, Bombay, or Madras. This fact is the less cheering because *iron and lime* are generally associated with coal in the same formation, and because India, except in the east, is comparatively destitute of these great elements and necessities of modern civilization. It is no great consolation to say that where coal exists it is abundant, that Beerbhoom, for instance, is one mass of mineral wealth. India is as large as Europe, and the coal of Raneeunge or lime of Sylhet is more useless to the cotton mills and building firms of Bombay or Madras than that of Newcastle is to Moscow. Coal is most bulky for carriage, and railway carriage will always be so expensive that it will probably be cheaper for Bombay to use good English than indifferent

Bengal or even Nerbudda coal. The following abstract contains the result of Mr. Oldham's inquiries:—

Districts.	1858.	1859.	1860.
Raneegunge Coalfield	5,917,000	8,949,600	8,559,097
Rajmahal Hills	219,000	843,000	1,222,860
Kurhbari	4,000	108,182	275,256
Palamow	—	28,648	30,900
Sylhet Hills.....	22,319	32,498	—
Total in maunds	6,162,319	9,961,928	10,088,113
Or in tons	226,140	365,575	370,206

These figures show the healthiness of the trade, which, notwithstanding the local fluctuations, has steadily progressed. In the Raneegunge coalfield, which is now tapped by the East Indian Railway, and which will shortly be pierced by two branches, there were last year 49 collieries with 27 steam-engines at work. This is the result of little more than twenty years' operations.

"The number of Collieries in the United Kingdom is 2,654, and the out-turn of coal is 72,000,000 tons annually, or 200 times that of India. Our readers will form a better estimate of the coal-producing power of India if we place in order, with the assistance of Mr. Hunt's mining records, the out-turn of all the coal countries in the world in 1857. We regret that Mr. Oldham has not given the proportion of the coal area to that of the whole country:—

Countries.	Proportion of Whole Area.	Production in Tons.
British Islands	1—10	66,000,000
Belgium	1—22	5,700,000
France	1—100	4,500,000
United States	2—9	4,500,000
Prussia	1—90	3,500,000
British North America	1—20	900,000
British India	—	370,206
Bohemia	1—20	300,000
Spain	1—52	250,000

Of the nine countries India is thus already seventh on the list.

"What a future for America is involved in the fact that nearly a fourth of her whole area, so far as investigated, is covered with coal! India raises a third more than Spain, and about the same amount as Warwickshire. The consumption of coal in India and by vessels leaving its ports we may estimate at 700,000 tons annually, the amount imported in 1857 from England being 329,157 tons. Reckoning the price of Indian coal in Calcutta at 5 annas a maund, or 17s. a ton, and English coal at the same rate (though it is far higher), we have more than 500,000*l.* sterling spent on coal every year in India. As the trade and manufactures of India increase, and as machinery comes to be more and more largely introduced, indigenous coal will become more important. The fact that the supply is in certain districts inexhaustible, and that the demand is annually increasing, is one full of hope for the coal companies and proprietors who already occupy or, like the Bengal Coal Company, monopolize the field. It is possible that the Nerbudda

fields, worked by the Company just established, may supply Bombay and the southern portions of the North-Western Provinces on the completion of the railway. But Oude, the Punjab, and Madras, must still look to their forests, which, on both sanitary and commercial grounds, it becomes daily of more importance to utilize and renew."

VI.—*American Census of 1860.*

A RECENT number of the *New York Times* gives the following abstract :—

"As the exact and official returns of the Census are being made public, we behold more clearly the precise march and direction of the population which has been filling up, during the last ten years, the unoccupied territory of the Union. Its grand and main course is *westward*, with some currents to the north-west and some to the south-west. The flood of population over some of our New States in the far West has probably never been equalled in the history of emigration, both in the character of the emigrants and in the number placed upon new soil, where before were the animals of the prairie and the forest and the roving Indian.

"Minnesota, for instance, increases from 6,077 inhabitants in 1850 to 162,022 in 1860, or at a rate of increase of over 2,500 per cent.; Oregon, from 13,294 to 52,464, or at the rate of 294 per cent.; Iowa, from 192,214 to 674,948, or at 251.22 per cent.; Texas, from 212,592 to 602,432, or 183.37 per cent.; Wisconsin, from 305,391 to 775,873, or 154.06 per cent. Arkansas increases 107 per cent., and Illinois over 100 per cent.

"The average rate of the growth of population in all the States during the last decade is 35.02 per cent. There are nineteen States below this average, the lowest in order being Vermont, 0.32 per cent.; then New Hampshire, 2.55 per cent.; and next South Carolina, 5.28; Maine following with 7.73, and Tennessee with 11.68, and once powerful Virginia with only 12.27, while North Carolina shows only 14.23.

"There are eleven States counting 19,528,555 inhabitants, or an average of more than one million and a-half each—namely, Illinois, Indiana, Ohio, Pennsylvania, Massachusetts, New York, Tennessee, Missouri, Virginia, Kentucky, and Georgia. In territories the greatest advance is, of course, in Utah, or 254.07 per cent. In New Mexico it reaches 51.98.

"The black current must always be the important one to the statistician of this Continent. The Census reveals a steady stream of negroes from the seaboard towards the south-west. Virginia retains her old pre-eminence as the breeder of slaves for market, in which noble occupation she is apparently closely followed by South Carolina, while the States whither this disgusting traffic tends are Arkansas, Mississippi, and especially Texas. The average increase of the slaves is moderately large, or 23.42 per cent. There is a loss but in two States, Delaware (of 21.48 per cent.) and Maryland (3.52). The increase in Virginia is only 3.88 per cent., and in South Carolina 5.28—this small advance evidently resulting from exportation. Kentucky, too, shows an increase of but 4.87 per cent. in the last decade, which gives a most gratifying prospect of the destiny of the system in Kentucky, as it is believed no very important numbers have been exported during the last ten years from that State. North Carolina only exhibits an advance of 14.74, and Tennessee of 15.17 per cent. Missouri presents a larger increase than was expected—namely, 31.51. The great increase is in Texas, where it reaches over 210 per cent. (210.66); in Arkansas it is 135.89, and in Florida, 57.09; in Mississippi, 40.93.

"In two States only are the slaves more numerous than the whites—in South Carolina, where they number 402,541, against 291,623 of the white inhabitants, and in Mississippi, being 436,696 to 363,969 whites. Their largest number in any one State is in Virginia (460,887), and the next in Georgia (462,232). In the

territories there are ten slaves enumerated in Nebraska, twenty-four in New Mexico, and twenty-nine in Utah. The district of Columbia shows a loss of slaves of 13·72 per cent.

" Among the *free-coloured* population the increase is very small through the Union—only 10·68 per cent. Their largest numbers are to be found, as usual, in Virginia, Maryland, and Pennsylvania. Little valuable in a statistical point of view is to be extracted from the tables of this population, as the diminution from banishment or emigration cannot be distinguished from that arising from natural and regular causes. The theory sustained recently by an able statistician in Washington (Mr. Weston), that the free negro inevitably diminishes on this Continent, is not yet sufficiently confirmed by facts to be admitted as a satisfactory scientific hypothesis. The race undoubtedly dies out in climates not adapted to it—as, for instance, in the Northern States; but whether it decays in freedom in the middle or southern latitudes does not yet fully appear. In many of the Southern and Western States there are laws expelling the free negroes, and their decrease observed in those States during the last decade may be due to these extraneous causes. Their largest increase in a Slave State is in Georgia (18·01 per cent.); in Alabama, 16·11; in Maryland, 12·04; the greatest decrease in Arkansas, 77·47. Greatest increase in a Free State, in Minnesota, 487·18 per cent.; in New York they lose 2·18 per cent. It will probably be many decades before we shall show such a rapid growth of numbers as in the last. The next Census will no doubt reveal new currents and new directions in our population. Instead of streams from east to west, we may then have many from north to south, and new results to chronicle in regard to the movements or decrease of the black population.

VII.—*Strike in the London Building Trade.—Proposed Compromise.*

THE following letter appeared in the *Times* of the 14th September (1861), written, it is believed by a person well qualified to suggest a fair compromise. It attracted a good deal of attention, and may ultimately be adopted.

" The Strike in the Building Trade has now lasted six months, and the energy of the combatants yet continues unabated; indeed, the warfare threatens to extend itself from the town to the country. Nevertheless, I cannot help thinking peace might be restored if both parties could calmly re-consider the position of affairs.

" The strike is not about wages, but about the system of work. The *hour system* was a change instituted by the masters for two reasons—

- " 1. To secure a more uniform measure of labour.
- " 2. To put an end to the nine hours' agitation.

" It was resisted by the men on two grounds—

- " 1. That it would tend to make the hours of labour longer and irregular.
- " 2. That it would deprive the operatives of certain privileges, as overtime, &c.

" Now a day's work, (price 5s. 6d.) was certainly a variable standard. It meant ten hours' labour on five days in the week, eight and a-half hours on Saturday, and in the winter time often only nine. This standard, however, did not give to the operative an excessive amount of wages, for, if the calculation of wages was made for all the year round, he would receive rather less than his share on the long days, and rather more on the short days. But the standard was inconvenient to masters in calculating their contracts, and unfair to individual customers who happened to require repairs to be done on the short days. On the other hand, an hour means sixty minutes every day in the year. It ought, therefore, without doubt, to be adopted as the measure of labour. The men, it is stated, make no objection to this.

"The agitation for a *nine hours' day* has been dropped by the men, who, instead, demand a half-holiday on Saturday. The masters who adopt the hour system have themselves introduced a half-holiday into their establishments. There is some little difference between the length of the half-holiday as demanded, and the half-holiday as granted, one beginning an hour before the other; but either side would do well in giving way upon so slight a point, rather than, for the sake of it, prolong this internecine contest. The nine hours' question, then, has been dropped, and cannot be renewed unless the conditions of the market change; why, therefore, shall it not remain quiet where it lies? It would be unreasonable for the masters—contrary to all political economy, which makes all contracts essentially to deal with the present—to attempt to prescribe for a future which may never come. Men, too, may remember that if the market will ever bear the change, a nine hours' day, though made more difficult of attainment under the hour system, is by no means incompatible with it.

"The masters distinctly deny that they desire to make the hours of labour longer or irregular, or even to change them. Then let them remain as they have been.

"The masters also repudiate the intention of depriving the men of any privileges. How needless, therefore—how foolish—to enter into a discussion with a view exactly to define those privileges, about which there is evidently some question. Let the privileges be as before. Overtime will then be paid where it was paid formerly, and at the same rate as formerly; where it was not paid, it will not be paid now.

"The terms, then, which I should propose for the compromise are as follows:—

"1. Payment by the hour, at 7*d.* per hour.

"2. The regular hours of labour as before, from 6 a.m. to 5-30 p.m. on the first five days of the week; from 6 a.m. to—(to be settled) on Saturday.

"3. Any work done after the regular hours to be paid at the same rate as formerly.

"4. All former privileges of the men to be retained. (This would include a clause, that if under the day system a man was not without notice dismissed before the end of the day, under the hour system he should receive a like notice, or five hours' pay).

"Thus, the building trade might once more set to work upon practically the same conditions as have served now for several generations, with the single exception of the change in the measure of labour. This change would be a clear advantage to the masters, but no less to the men, who would accept it voluntarily from a sense of justice. All irritating and endless controversies would be closed. Neither party would have achieved—what would be equally injurious to both winner and loser—a victory."

VIII.—*Failure of the Harvest of 1861, in France; Imports of Corn.*

THE following paragraph is given by *Galignani*. Reckoning the Imperial English Bushel at, say 60 lbs avoirdupois, the Imperial Quarter would be (8×60) say 480 lbs. or equal to 2·16 French Quintals of 221·5 lbs.

"An official return just published shows that the *import of wheat* into France in the first nine months of the present year was 3,745,606 quintals (the quintal is 221½ lb.), and that of flour 246,299; the largest quantities of the former being brought from Russia, England, the United States, and Turkey; and the latter from the last three countries and from Spain. Of *rye*, the import in the same period was 27,260 quintals from Russia, and 25,895 from Belgium; *maize*, 57,787 from Turkey; *barley*, 54,000 from Belgium, 25,366 from Turkey, and 91,807 from

Algeria; and *oats* 123,243 from Russia, 72,214 from Sweden, 76,517 from Germany, 51,696 from Belgium, 29,758 from England, 11,193 from Italy, and 32,899 from other countries. In the same nine months France exported 326,541 quintals of wheat the greater part to England and Switzerland; 269,468 of flour chiefly to England, Switzerland, and Algeria; 194,272 of potatoes, principally to the same countries; 66,391 of barley to England, and 18,046 to the Zollverein; and 11,439 of oats to Switzerland.

From another return it appears that from the beginning of what is technically called "the season" of (1861-2,)—that is from the 1st August last (1861), up to the 20th October, (1861,) the quantity of *wheat and flour* combined, which was imported into France was 4,232,385 quintals, and that exported 68,236, leaving an excess of imports of 4,164,149 quintals. In the same period the excess of imports over exports of *rye and other grain* was 340,120 quintals.

IX.—Calculations relative to the Effect of a High Price of Raw Cotton on the Prices of Cotton Cloth, November, 1861.

THE following statement appeared in a letter signed "J. M." in the *Times* of 9th November, 1861:—

"It has been calculated that the *home market* absorbs *two-thirds* of all goods manufactured in this country. If so, our trade with the United States, under present circumstances, can only be affected to the extent of their proportion to that third, and the dreaded consequences to this country from the continuance of the war in America is, to my mind, more visionary than real. As to cotton, it appears from the *Times* of the 5th inst. that at present there is no lack of stock in this country of the raw material; and, if there was, I believe the present high prices would command a supply, directly or indirectly, from even the Southern States of America, in the same way as goods were obtained from Russia during the war with that country. The additional price on cotton will not affect the price of the medium and *finer textures* of cotton goods to the extent per yard that some persons predict, from the fact that the cost of the raw material (unlike silk and woollen) is but a fraction of the value of the cloth, when compared with the labour required to produce it. The fluctuations in the *price of weaving* tend, not unfrequently, to alter the price of cotton goods as much as the present rise in the raw material; and I believe the present depression in *cotton cloths* in the American market proceeds more from panic, and an over-abundant supply already in that market, than from any reasonable explanation why the women of that country should cease wearing cotton dresses during the time of war any more than during the time of peace; for even should the raw material of cotton become higher in price than it is at present, it would still be found the cheapest and most serviceable commodity for the manufacture of the lighter fabrics, and so long as we defy competition in manufacture there is nothing to fear.

"To show to what extent the present rise in the raw material of cotton will affect the prices per yard of the commoner fabrics woven by power and hand-loom, I give the following examples in ranges most common for gingham, gray cloths, &c. and for the sake of simplicity, though not strictly correct, I will calculate the *wefts*, of the same fineness as the *warps*. I may also explain that the terms 1,000, 1,400, and 1,800, indicate the fineness, or closeness, of the reed through which the warp works. Thus, a 1,000-reed represents 1,000 splits or dents, or 2,000 threads, in 37 inches, and when evenly *wefted*, as in this case, the *weft* bears the same proportion to space as does the *warp*. In calculating this table I have allowed 5 per cent. for waste:—

Showing the Yarns, Width, Length, and Weight, with the Cost of Raw Material to Work Five Yards in the several Reeds when sold by the lb. at 7d. and 1s.								Showing the Cost per Yard of Raw Material when Sold at 7d. and 1s. per lb.		Dif- ference of Cost between 7d. and 1s.
Reed.	Number of Yarns.	Porters Wide.	Spy.	Hks.	lb. oz. d.	7d. Per lb.	1s. Per lb.	7d. Per lb.	1s. Per lb.	Per Yard.
800	18's	40	1	2	1 1 12	7½	13½	1½	2½	1½
1,000	26's	50	1	7	- 15 6	6½	11½	1½	2½	-½
1,200	38's	60	1	12	- 12 10	5½	9½	1	1½	-½
1,400	50's	70	1	17	- 10 12	4½	8	-½	1½	-½
1,600	66's	80	2	4	- 9 11	4½	7½	-½	1½	-½
1,800	84's	90	2	9	- 8 9	3½	6½	-½	1½	-½

"It will be seen from this table that the cost of the raw material to make, for instance, one yard of a 1,400 square, if sold at 7d. per lb., would be ½d.; if at 1s. would be 1½d.; and as a yard of that cloth would range in price from 7d. to 8d., the proportion that the raw material of ½d., or even 1½d., bears to the cloth will be apparent; and the additional cost per yard on the above fabrics in consequence of the rise in price of the raw material amounts to 1½d. on the square yard of an 800, ½d. on a 1,000, ⅓d. on a 1,200, ¼d. on a 1,400, ⅕d. on a 1,600, and ⅙d. on a 1,800. The heavier cotton goods, such as moleskins and corduroys, will, no doubt, suffer, but their place can be supplied with hoddan gray in woollen fabrics, should that be necessary."

X.—The Financial Revulsion in France of 14th November, 1861—Declaration of a Deficit of 40,000,000l.—and Appointment of M. Fould as Finance Minister.

THE extraordinary documents which appeared in the *Moniteur* of 14th November, (1861), declaring the utter failure of the financial policy of the Empire,—the existence of a Deficit of at least 40,000,000l.,—and the appointment of M. Fould as a kind of Supreme Finance Minister, induce me to insert here the Conclusions, at which, in conjunction with Mr. Tooke, I arrived at the close of 1856, after an extensive examination of the Financial Policy of France during the preceding fifteen years. The following paragraphs are the Statement of Conclusions at the end of the sixth part of the fifth and sixth vols. of the "History of Prices" published early in 1857. The quotation is from vol. vi, pp. 130—134.—(W. N.), Ed. S. J.

"The following appear to be the principal Conclusions, which are fully justified by the statements and evidence contained in the preceding inquiry in this sixth part, viz. :—

1. "That the Revolution of February, 1848, occurred at a period, when, by the operation of numerous causes, the Finances of the French Government were already seriously embarrassed;—that among the most important of these causes were the Laws of 1841 and 1842, under which the State had taken upon itself the responsibilities and the expenditure entailed by the construction throughout France

of an extensive network of trunk lines of railway; the unproductive expenditure for a long series of years of large annual sums in Algeria; the unproductive expenditure of considerable sums on Public Works, yielding no adequate return either direct or indirect; and the maintenance for a long period of an excessive annual outlay on the Army and Marine:—and that, in immediate aggravation of all these causes of financial disorder, there had occurred in France, in the closing months of 1846, and throughout the greater part of 1847, a commercial crisis (taking its origin in the serious failure of the Harvest of 1846), more severe and disastrous than had been experienced in France for twenty or thirty years.

2. "That the suspension of Cash Payments by the Bank of France, adopted in March, 1848, and maintained for two years and a-half, till August, 1850, was a measure wholly unavoidable, in consequence of the prevalence in March, 1848, of extreme internal discredit, which admitted of being met in no other form:—that the prevalence during these two and a-half years of a very low price of corn in France; of a state of the external Trade of France, which established a large yearly balance in favour of that country; and of the absence of any political causes, which rendered it necessary for the Government to require excessive advances from the Bank of France, rendered the suspension practically unproductive of any depreciation or inconvenience, and led to its removal in August, 1850, by the spontaneous accumulation in the Bank of France of an amount of Treasure quite equal to the amount of Notes in Circulation.

3. "That among the important circumstances which have contributed to strengthen the position of the Bank of France since 1848, and to aid the Government in its plans for fostering credit, has been the extension, by 12 or 14 millions sterling, of the disposable means of the Bank of France, in consequence of the addition of that amount in the form of Small Notes to the former average Circulation of the establishment.

4. "That under the Autocratic Government established in December, 1851, there have been introduced into France a set of financial principles, and there have been placed in course of trial a series of financial experiments, distinguished by a novelty which finds no sanction in any successful precedent,—by a hardness which sets at naught almost every established canon of finance,—and by a disregard of the future, which purchases present popularity at any cost.

5. "That the earliest purposes to which the New Financial Policy was devoted, were the reduction in March, 1852, of the interest on the French Five per cent. Debt; the imposition, on the Bank of France, of a new charter, which compelled it at once to lower the rate of discount to 3 per cent., and to make large advances on Stock Exchange Securities; the concession, on conditions more or less onerous to the State, of a large number of lines of railway; and the introduction of several joint-stock companies, encouraged by every State appliance to foster the application of credit to purposes of speculation.

6. "That between the early part of 1852 and the autumn of 1853, the prosperity and progress which seemed to prevail in France were chiefly the result of these artificial measures.

7. "That the difficulties of various kinds which have occurred in France since the close of 1853, and more especially the difficulties experienced by the Bank of France in the autumns of 1855 and 1856, have arisen, in a principal degree—allowing of course for the war and scarcity—from the embarrassments and disorders, entailed by the policy which has forced upon France enterprises and speculations disproportionate to its resources of available capital.

8. "That those embarrassments and disorders would have become altogether overwhelming, if it had not been for the springing up, since 1849, chiefly in the gold countries, and in consequence of the gold influx, of a demand for French manufacture and produce, so large and continuous, that during the nine years, 1848-56, the balance of trade in favour of France has amounted to not much less than 80 millions sterling.

9. "That neither the apparent success of the reduction of the French Five per Cents. in March, 1852, nor the apparent success for some time of the enforced

maintenance of a Low Rate of discount; nor the setting up of popular Discount and Loan Banks; nor the apparent alacrity with which the subscription lists to the war loans of 60 millions were filled up; nor the maintenance for a long period of the schemes for selling bread at an artificially cheap rate; nor the multiplication of railway companies by means of guaranteed dividends; nor the apparent prosperity created by public works and credit institutions; afford the smallest support, when examined minutely and fully, to the financial principles and the financial practices, which have held the supreme place in France since December, 1851.

10. "That of the two great credit institutions, called the Credit Foncier, and the Credit Mobilier, the former is directed to a useful and laudable object, but is degraded and disfigured by the introduction of elements of gambling, empirical, and pernicious; and the latter, the Credit Mobilier, seeking to obtain large profits by exciting violent fits of stock jobbing, and to obtain large funds by the issue of obligations practically not payable in specie;—*approaches in design and machinery nearer than any institution of recent times to the model afforded by Law's Bank of 1716, and the Compagnie des Indes of the three following years.*

11. "That, as a result of the whole investigation concerning the financial policy of France since 1847, there have been made apparent three principal facts, namely:—First, that between 1847 and 1851, it was the abundant harvest and low price of food in France which contributed in the largest degree to preserve order, to restore cash payments, and to re-establish an equilibrium between the income and the expenditure; second, that between 1851 and 1857 it has been the 100 millions sterling made available to France by the economy of its metallic circulation, and by the demand for its silks and wines in the gold countries, which has so far carried it through the perils of war, scarcity, and extravagance; and third, that the reckless and socialistic financial policy introduced since December, 1851, has already exposed France to failures and perils quite as formidable as any that were threatened by the Revolution of 1848; *and unless subjected to early and most severe restraints, will assuredly produce the most disastrous consequences.*"

XI.—*Lord Canning's Measure for the Sale of Waste Lands and the Redemption of the Land Tax in India.*

LORD CANNING'S measures of October, 1861, relating to the Sale of Waste Lands and the Redemption of the Land Tax in India are so important that they may be regarded as the commencement of a kind of economical revolution in India; we, therefore, give the Official Paper entire. Of the sound policy of the measure there can scarcely be two opinions. It ought to have been adopted long ago.—*Ed. S. J.*

"RESOLUTION.

"1. His Excellency the Governor-General in Council has had under his consideration the subject of the despatches from the Right Hon. the Secretary of State (No. 2 of 31st Dec., 1855; No. 1 of 16th March, 1859), with the opinions of the several local Governments, and of most of their principal officers, on two important subjects:—

"I. The sale of waste lands in perpetuity, discharged from all prospective demand on account of land revenue; and

"II. Permission to redeem the existing land revenue by the immediate payment of one sum equal in value to the revenue redeemed.

"2. His Excellency in Council finds that the ablest and most experienced public officers very generally concur with private parties interested in land, in the expec-

tation that substantial advantages will follow the adoption of both these measures.

"3. There is, however, much diversity of opinion as to the extent to which either measure is likely to operate, and as to the rules under which the acquisition of waste land in perpetuity and the redemption of the land revenue should be allowed. Some experience may be required to test fully the comparative soundness of the several opinions on these points; but his Excellency in Council sees no reason to doubt, that so far as either measure may take effect, it will be in every way beneficial.

"4. As regards the sale of waste lands, there can be no question of the substantial benefits, both to India and to England, which must follow the establishment of settlers who will introduce profitable and judicious cultivation into districts hitherto unclaimed. His Excellency in Council looks for the best results to the people of India, wherever in such districts European settlers may find a climate in which they can live and occupy themselves without detriment to their health, and whence they may direct such improvements as European capital, skill, and enterprise can effect in the agriculture, communications, and commerce of the surrounding country. He confidently expects that harmony of interest between permanent European settlers and the half civilized tribes, by whom most of these waste districts or the country adjoining them are thinly peopled, will conduce to the material and moral improvement of large classes of the Queen's Indian subjects, which for any such purposes have long been felt by the Government to be almost out of the reach of its ordinary agencies.

"5. His Excellency in Council has still less doubt as to the beneficial results of permitting a redemption of the land revenue. He believes that increased security of fixed property, and comparative freedom from the interference of the fiscal officers of the Government, will tend to create a class which, although composed of various races and creeds, will be peculiarly bound to the British rule; whilst, under proper regulations, the measure will conduce materially to the improvement of the general resources of the empire.

"6. But it is the firm conviction of the Governor-General in Council that, in order to obtain permanently good results from such measures, it is indispensable not only that no violence be done to the long-existing rights which, sometimes in a rude, sometimes in a complicated form, are possessed by many of the humblest occupants of the soil in India, but that these rights be nowhere slighted, or even overlooked. Scrupulous respect for them is one of the most solemn duties of the Government of India, as well as its soundest policy—whatever may be the mode in which that Government may think fit to deal with rights of its own.

"7. With these views his Excellency in Council proceeds to state the rules under which he desires that the governments and administrations of India should give effect to these two measures:—

"8. I.—*As to the sale of unassessed waste lands, in which no right of proprietorship or of exclusive occupancy are known to exist at present, or to have existed in former times, and to be capable of revival.*

"9. In any case of application for such lands they shall be granted in perpetuity, under the rules which will be presently laid down, as a heritable and transferable property, subject to no enhancement of land revenue assessment.

"10. All prospective land revenue will be redeemable, at the grantee's option, by a payment in full when the grant is made, and the land granted will thenceforward be permanently free of all demand on account of land revenue.

"Or, at the grantee's option, a fixed annual sum may be paid at the rate of 10 per cent. on any unpaid portion of the price of the grant, which will then be under hypothecation till the price is paid in full.

"11. The deed of grant shall be drawn up in English, with a vernacular translation attached; the meaning in all doubtful cases being settled by the English text.

"12. Except under peculiar circumstances which may require special reserve-

tion, the deed shall convey all rights of forest, pasturage, mines, fisheries, and all other property of the Government in the soil; but it will reserve to the Government, to proprietors of other lands, and to the public, all existing and customary rights of freely using any stream for purposes of navigation or irrigation, and for the transport of timber or other property, and for other purposes of general utility.

"13. There shall be no reservation to Government of any right to take land or material for roads, tanks, canals, works of irrigation, or other public improvements other than may be marked out or designated at the time of the grant, or otherwise specifically excepted in the grant. But the absence of such reservation will not affect the power of the Government to purchase land under Act VI, of 1857, or under any other general law for the acquisition of land, &c., required for public purposes.

"14. There shall be no condition obliging the grantee to cultivate or clear any specific portion of the grant within any specific time.

"Conditions of this kind are considered by many experienced officers as useful, if not necessary, provisions; but the Governor-General in Council is convinced that every reasonable object of such restrictions—such as the guarding against attempts to monopolize advantages of situation with a view to a re-sale rather than to immediate use—will be sufficiently secured by a limitation of the area of grants, and by the necessity for immediate payments, and that the latter kinds of security will be the more advantageous to purchasers.

"15. And if the area be limited, his Excellency in Council does not attach importance to any provisions for clearing and cultivating any specified proportion of it. The price to be paid will generally serve as a security that the grantee will clear as much as he can, unless he finds it more profitable to keep land as forest or pasturage; and there is no ground of public policy upon which to require him to do more. It is rarely that the clearance of trees, beyond what is needed for cultivation, is an object of public importance. In many parts of the country the contrary is the case. And as a general rule, and whatever may be the nature of the growth which covers the soil, his Excellency in Council would wish, in this as in other matters, to leave it entirely to the owner's judgment and self-interest to make the best of a grant for which he has once for all paid a fair price to Government.

"16. The land registers of the collector of land revenue, or of any other local officers exercising collectors' powers, when properly kept and perfect, will often enable him to state at once whether there is any other prior claim of property or occupancy on the land applied for.

"17. When there is no such claim apparent from the Government records, and the collector knows no other objection to the grant, he will advertise the application in the customary and effectual manner for a term which probably need rarely exceed thirty days.

"18. When, after the expiration of the term fixed, no such claim is preferred, or when, if preferred, it shall have been disposed of, the collector will give to the applicant a document testifying that the land, as described in his application, has been allotted to him, subject to the terms hereinafter specified.

"19. If after the allotment of the land under the preceding rule, any person shall establish a right of property in the land so allotted, the possession of the party to whom the land has been granted *bond fide* shall not be disturbed. But provided the claim be made one year from the allotment, the claimant, on proof of his right and on showing good reason why his claim was not advanced before the allotment took place, shall be entitled to receive from the Government full compensation for the actual value of his interest in such land. After the expiration of a year all rights of third persons which have not been already claimed, will be altogether barred, as well in regard to compensation as against the land, subject in regard to compensation to the same exceptions in case of persons under disability from infancy, lunacy, or other like causes, as are admitted by the existing law of limitations.

"20. No reference to revenue boards or other distant authorities should be necessary, except in special cases of doubt. Rules of procedure must be laid down

by the local governments with sufficient clearness of detail to obviate in all ordinary cases any necessity for reference or sanction.

"Grants will of course be immediately reported to the local government, and any departure from the rules of procedure should be promptly noticed by the Board of Revenue, or other controlling authority. But no confirmation should be required to complete grants made in accordance with the published rules of procedure; and such grants should not be liable to be disturbed on account of any informality not attributable to any act or default of any grantees.

"21. A maximum limit must be fixed to the size of all grants. Probably 3,000 acres would be of suitable limit in Eastern Bengal, Cachar, Assam, and similar districts. In localities where land is more valuable and in great demand—as, for instance, in the neighbourhood of towns, hill stations, and sanatoria—a lower limit may be fixed. It will generally be safe to consult the wishes of intended applicants on this subject when they are in numbers sufficient to give weight to their opinions as to what general limitation is likely to be best for the general interests; but regarding such consultation each local government will exercise its own discretion.

"22. In districts like Sylhet, Cachar, and Assam, where a considerable portion of the ground is swamp or unculturable land, a due proportion may be deducted as valueless. Probably this need never exceed one-fourth of the whole area.

"23. Wherever it is necessary for the public interests to reserve for future disposal any special tracts of land of which no immediate grant will be made, due notice should be given, so that applicants for land must not lose their time in examining such tracts.

"24. It is to be understood that reserves of grazing land, or of land for the growth of forest trees, or of fire wood near towns and stations, or for other special purposes, such as sites for sanatoria, building lots, &c., &c., are not to be sold without the special sanction of Government.

"25. When the land applied for is unsurveyed, immediate possession may be given on payment of the collector's estimate of the cost of survey; and this may generally be calculated at a fixed rate, according to estimated acreage. But no time must be lost in having a survey made, and for this purpose one or more competent surveyors should be attached to every unsurveyed district where such applications are likely to be frequent. The survey need not embrace more details, nor be made with greater accuracy than is necessary clearly to define rights, and to ensure the ready identification of boundaries.

"26. In surveyed districts a tracing from the official plans, and extracts from the field books and other registers will generally suffice.

"27. Ten per cent. of the purchase money, and the actual cost of survey (allowing of course for the sum previously deposited upon the collector's estimate of the survey) will be paid by the grantee on delivery of the deeds and plan, and the name of the grantee will be provisionally entered in the collector's records as proprietor of that grant.

"28. If the balance of the purchase money be not paid within three months, interest at ten per cent. per annum, will, as has been already prescribed in paragraph ten, be charged on the unpaid balance; and the land will be held liable to re-sale in default of the regular payment of such interest, should there be no crop or other moveable property on the land from which the claim of Government can be satisfied.

"29. The price to be paid for *unsurveyed land* should not exceed rupees 2½ per acre for uncleared land, or rupees 5 per acre for land unencumbered with jungle, subject to deduction of area for swamps or unculturable land, as above stated. This limitation of rates shall remain in force for five years from the 1st of January, 1862, subject to revision in the case of land which may be sold after that period.

"30. In the event of more purchasers than one offering to buy the same tract, neither having any previous right to the land, it may be put up to auction at the upset price of an ordinary grant. But except in such cases, or in the case of

suburban lots, recourse will not be had to sale by auction; the applicant will receive his land at a fixed price.

"31. Provision will be made for a further grant to the same grantee to the following extent:—As soon as the grantee's name shall have been provisionally entered in the collector's records as proprietor of a grant (as prescribed in paragraph 27), any one adjoining plot, not exceeding the previous grant in area, if not previously applied for, and if available for disposal by Government, may at the grantee's request be surveyed at his expense, marked off, and reserved as a future grant to him; but subject to the obligations that within five years from the date of his previous grant he shall fulfil the conditions necessary to his being recorded as proprietor of this further grant, and that two-thirds of the previous grant shall within the same time have been brought under cultivation. If he should fail in either obligation the reservation of the plot will cease.

"32. There need be no limit to the number of further grants which may be successively taken up on fulfilment of these obligations.

"33. Holders of grants under any existing rules, who have not yet completed the purchase of their grants, will be allowed to commute them under the new rule, but without being subject to the limitation of the new rules as to area. The area which, in such cases, the grantee will be at liberty to purchase absolutely, will be determined by the provisions of the original grant; and he will be free to purchase absolutely as much or as little of that area as may suit him, retaining, if he pleases, the remainder upon the terms of the original grant.

"34. Where there are exclusive rights of occupancy, pasturage, wood-cutting, turf-cutting, or other like rights in unassessed waste land, such waste land may be sold under the above rules, but only to those who shall satisfy the collector that they possess such rights by prescription, or have obtained them by purchase. It will be an important part of the collector's duty to make certain that any transfer of such rights shall have been made with a complete and fair understanding on the part of all concerned.

"35. Ryotwarry district lands, for which an assessment has been fixed, but which have been uncultivated for five years or upwards, but which are at the absolute disposal of the Government, may be sold under the same conditions as unassessed waste lands, excepting that the price shall be 20 years' purchase of the assessment.

"36. The right of purchase on these terms should, in the first instance, be tendered to the inhabitants of the village within whose bounds the land may be situated, or who may have been in the habit of using it.

"37. The tenure of all waste lands granted under this resolution will be that of an heritable and transferable property held in perpetuity free from all claims either of the Government or of third persons prior to or inconsistent with the grant.

II.—*As to the Redemption of the Land Revenue.*

"38. Great caution is necessary in dealing with what has always formed so large a part of the revenues of the Government of India. The Governor-General in Council proposes, therefore, in the first instance, to limit the permission of redemption in any one district to such a number of estates as shall, in their aggregate assessment, not exceed 10 per cent. of the total land tax of the collectorate, or corresponding fiscal division of the country.

"39. This restriction will enable Government to ascertain in each province, without undue risk to its permanent fiscal resources, the practical effect of permitting the redemption, both in completely populated and well cultivated districts, and in those where there is much uncultivated land and a thin population. It will afford an opportunity of hereafter reconsidering the effects of the measure with the light of ample experience; while the limit which it prescribes is large enough to allow of a considerable number of those who may be able and desirous of redeeming the land revenue of their estates to do so, partially or wholly.

"40. In any case when redemption shall have reached the limit of 10 per cent. of

the total land revenue of the collectorate, the result is to be reported to the Governor-General in Council, with a view, if expedient, to the enlargement of the limit in that collectorate, and to the permission of further redemption.

"41. The price to be paid is fixed at 20 years' purchase of the existing assessment.

"42. Doubts are expressed by experienced officers whether many purchasers will come forward at such a rate, so long as the current rates of interest for money lent on security, or employed in trade, continue as high as at present. But justice to the public creditor, and a due care for the resources of the Government, require that, as long as the public revenue is no more than sufficient to meet the current charges of the empire and the interest of its debt, no lower terms of redemption of a permanent tax forming the security for that debt should be accepted than will, when the price is invested in public securities, afford a corresponding relief in the payment of interest.

"43. The tenure obtained will, as in the case of waste lands, be that of an heritable and transferable property, held in perpetuity free of all demand on account of land revenue, or of the Government. But such tenure will not carry with it, as that of waste lands will, immunity from any legal claims, other than those of Government to which the lands may be subject, and which may date prior to the grant under this resolution.

"44. Also the same steps will be taken to define the exact extent and limits of the property, by means of plans and survey records.

"45. In districts in which the land revenue is permanently settled permission to redeem will be confined to the person who has the right to pay the Government land revenue, rent, assessment, or Jumma; and its effect will be strictly limited to such Government claims, reserving all existing sub-tenures or subordinate rights of occupancy.

"46. In districts in which this land revenue is not permanently settled the party who has the right to pay the Government land revenue, rent, or Jumma, will be permitted to redeem it only when he also possesses the right of occupancy of the land.

"47. The freedom of tenure conferred by redemption of land revenue will be absolute only as against the Government. It will be given on *prima facie* evidence of the rights above-mentioned, and other parties contesting those rights and claiming the land will be as free as before to sue the holder in the civil courts.

"48. The assessment on which the purchase money will be calculated will, in permanently settled districts, be the permanent assessment.

"In temporarily settled districts it will be the assessment of the last settlement.

"49. It has been apprehended that the Government will suffer loss by such a rule where a temporary assessment has been fixed so low as to render it certain that a considerable enhancement may be expected at the next settlement.

"In such cases the enhancement of the direct revenue from the land will of course be foregone; but in many parts of the country where this would happen there exist, in a peculiar degree, that amount of general intelligence, and of confidence in the measures of the Government, and that sufficiency of capital which would encourage landowners to redeem their land; and where this is the case his Excellency in council considers it a wise policy that those who may come forward to redeem should not be shut out from the full advantage of the measure by reason of their actual assessment being low.

"The price fixed precludes any sacrifice of immediate revenue; and his Excellency in Council is convinced that even a few estates on which the land revenue has been redeemed, scattered through the country, would have in many indirect ways a beneficial effect on the unredeemed land revenue itself, as well as on other sources of Government income.

"50. Grants which have already been given for a term of years, at progressively increasing rents, such as those in the Sunderbunds, will be treated as if the land were permanently settled, if the holder wishes to redeem the future land revenue at the highest rate fixed for any year during the currency of the grant, —

provided it shall not exceed the rate fixed in paragraph 29 of this resolution, and if there is no right of occupancy other than that of the lessee, or that derived from him.

" 51. Where no right of proprietorship or of occupancy exists in any party, and the land is simply held from year to year, or by tenants at will, the actual tenant should be allowed to redeem; unless there be competition, when the redemption should take place by auction.

" 52. Where estates are assessed in shares (such as co-partenary estates, held on Byachara, Pattadaree, Nirwa, or Baghdar tenures), it will be necessary to define that nothing more is sold than the right of the Government to levy and assessment, and that this is sold only to those who are under liability to pay that assessment. Moreover, that the purchasers will remain subject to all other customary liabilities, whether to individuals or to communities.

" These conditions are indispensable to insuring that no other sharers' rights shall be injuriously affected.

" 53. Such tenures will require peculiar care in dealing with them; but provided that suitable and sufficient precautions be taken there is no reason why those who hold them should be excluded from the benefits of the measure.

" 54. As in the cases of sale of waste lands, so in those of redemption of land revenue, no conditions will be imposed as to the expenditure of a given amount of capital, the growth of particular staples, or the like. The party redeeming the land revenue will be left entirely free to follow the course which he may deem most profitable to himself.

" 55. Provision will be made in any legal enactment which may be passed to give effect to this resolution, that the party named in the grant, whether of waste land, or of land on which the assessment has been redeemed, or his legal heir or representative, shall be regarded as the sole legal owner of the land, subject only in the latter case to claims other than those of Government, and to sub-tenures and subordinate rights of occupancy existing at the time of redemption, and that no transfer property in it shall be recognised by other courts or fiscal officers, unless duly registered.

" 56. With a view to secure the Government and the public creditor against any loss of existing sources of Government income, provision will be made by law that all sums paid in purchases of waste lands, or in redemption of land revenue, or in otherwise forestalling the land revenue, shall be paid to commissioners and periodically invested as the law may direct. The commissioners will report annually to Government the total amount they have received and invested, and the districts from which it has been received, and their reports will be published.

" 57. The local governments will be called on to prepare the draft of a law to give legal effect to these measures within their several jurisdictions, so as to secure for all grantees a legislative title to their property.

" But it is not necessary to await the enactment of such a law before making known, and, as far as practicable, acting upon, the rules which have been here laid down."

**ABSTRACT OF THE REGISTRAR-GENERAL'S RETURN
OF THE
MARRIAGES IN ENGLAND AND WALES DURING THE SECOND QUARTER
(APRIL—JUNE), OF 1861, AND OF THE BIRTHS AND DEATHS
DURING THE THIRD QUARTER (JULY—SEPTEMBER), OF 1861.**

THIS Return comprises the BIRTHS and DEATHS registered by 2,199 Registrars in all the districts of England during the summer quarter that ended on September 30th, 1861; and the MARRIAGES in 13,509 churches or chapels, about 4,488 registered places of worship unconnected with the Established Church, and 635 Superintendent Registrars' offices, in the quarter that ended on June 30th, 1861.

Marriages were comparatively few in the first quarter of this year; they became *more numerous* in the second quarter, which indeed happens very invariably in England; but still they did not quite attain the average for the June quarter; the *children born* in the September quarter *decidedly exceeded* the number which the average birth-rate for the same period would have produced; whilst the *rate of mortality* in the same three months, though it differed little from, *was not so high* as the average rate for that season, which is the healthiest of the year. This statement exhibits the most prominent features of the Return.

The POPULATION of England, from whose daily history the above results are evolved, may be stated to have been last April, 20,062,613. This number is subject to some modification, which may be necessary after further revision of the facts. The rate of increase in the last decennium was 12 per cent.

MARRIAGES.—The number of persons married in the spring quarter was 83,931.

**ENGLAND :—MARRIAGES, BIRTHS, and DEATHS, returned in the Years
1855-61, and in the QUARTERS of those Years.**

Calendar Years, 1855-61 :—Numbers.

Years	'61.	'60.	'59.	'58.	'57.	'56.	'55.
Marriages No.	—	170,305	167,723	156,070	159,097	159,337	152,113
Births	—	683,440	689,981	655,481	663,071	657,453	635,043
Deaths	—	422,472	440,781	449,656	419,815	390,506	425,703

QUARTERS of each Calendar Year 1855-61.

(I.) MARRIAGES :—Numbers.

Qrs. ended last day of	'61.	'60.	'59.	'58.	'57.	'56.	'55.
March .....No.	33,401	35,198	35,382	29,918	33,321	33,427	29,186
June	41,966	43,833	42,042	39,890	41,267	38,820	38,549
Septmbr.....	—	40,572	39,803	38,599	38,669	39,089	37,308
Decmbr.	—	50,702	50,496	47,663	45,840	48,001	47,070

QUARTERS of each Calendar Year, 1855-61.

(II.) BIRTHS:—Numbers.

Qrs. ended last day of	'61.	'60.	'59.	'58.	'57.	'56.	'55.
March .....No.	173,170	183,206	175,532	170,959	170,430	169,250	166,225
June „	184,718	173,914	175,864	169,115	170,444	173,263	165,277
Septmbr. „	171,500	164,062	168,394	157,445	161,181	157,462	154,700
Decmbr. „	—	162,258	170,091	157,962	161,016	157,478	148,841

(III.) DEATHS:—Numbers.

Qrs. ended last day of	'61.	'60.	'59.	'58.	'57.	'56.	'55.
March .....No.	121,713	122,642	121,580	125,819	108,665	103,014	134,542
June „	107,721	110,878	105,631	107,142	100,046	100,099	106,493
Septmbr. „	100,986	86,423	104,216	98,142	100,528	91,155	87,646
Decmbr. „	—	102,529	109,354	118,553	110,576	96,238	97,022

The marriage-rate was 168 to ten thousand of the population, which is less by two than the average, and less by eight than the annual number married in the same quarter of last year, when it is shown by the Returns of the Poor Law Board, the labouring class were in a more thriving condition. By surveying the eleven great divisions of England, as these are constituted in the Tables, and with reference to their several contributions to the marriage-list, this result will be discovered—that there was a *decrease of marriages* last spring as compared with the same period of 1860 in all of these divisions except two. The South-eastern counties, especially Surrey, maintained a fair proportion; and in the Northern counties there was a very manifest increase. Durham, Sunderland, Gateshead, Tynemouth, and Carlisle, were in a prosperous condition, if, as may be presumed, a willingness in the unmarried to form the marriage relation, and a confidence in their ability to undertake its responsibilities, be the test of prosperity in England.

ENGLAND:—*Annual Rate Per Cent. of PERSONS MARRIED, BIRTHS, and DEATHS, during the YEARS 1855-61, and the QUARTERS of those Years.*

Calendar Years, 1855-61:—General Percentage Results.

YEARS	'61.	Mean '51-'60.	'60.	'59.	'58.	'57.	'56.	'55.
Estmtd. Popln. of England in thousands in middle of Year	20,114	—	19,889	19,667	19,448	19,231	19,016	18,804
Persons Mar- ried Per ct.	—	1·694	1·712	1·706	1·606	1·654	1·676	1·618
Births „	—	3·420	3·436	3·508	3·370	3·448	3·457	3·377
Deaths „	—	2·226	2·124	2·241	2·312	2·183	2·054	2·264

QUARTERS of each Calendar Year, 1855-61.

(I.) PERSONS MARRIED :—Percentages.

Qrs. ended last day of	'61.	Mean '51-'60.	'60.	'59.	'58.	'57.	'56.	'55.
March....Per ct.	1·352	1·417	1·420	1·460	1·248	1·408	1·416	1·266
June..... "	1·676	1·703	1·762	1·712	1·642	1·714	1·638	1·648
Septmbr. "	—	1·622	1·606	1·598	1·566	1·592	1·626	1·574
Decmbr. "	—	1·999	2·002	2·020	1·930	1·876	1·990	1·978

(II.) BIRTHS :—Percentages.

Qrs. ended last day of	'61.	Mean '51-'60.	'60.	'59.	'58.	'57.	'56.	'55.
March... Per ct.	3·506	3·592	3·693	3·624	3·567	3·600	3·585	3·603
June ... "	3·689	3·554	3·495	3·579	3·480	3·548	3·656	3·534
Septmbr. "	3·378	3·275	3·250	3·379	3·195	3·308	3·275	3·261
Decmbr. "	—	3·227	3·203	3·402	3·198	3·295	3·264	3·128

(III.) DEATHS :—Percentages.

Qrs. ended last day of	'61.	Mean '51-'60.	'60.	'59.	'58.	'57.	'56.	'55.
March ... Per ct.	2·464	2·480	2·472	2·510	2·625	2·295	2·182	2·916
June "	2·151	2·207	2·228	2·150	2·205	2·083	2·112	2·277
Septmbr. "	1·989	2·021	1·712	2·091	1·992	2·063	1·896	1·848
Decmbr. "	—	2·179	2·024	2·187	2·400	2·263	1·993	2·039

BIRTHS.—There were 171,500 children born in the summer quarter (ending September, 30th). In the summer of 1860 the number was 164,062. The annual birth-rate derived from ten summers is 328 for ten thousand of the population; in the last quarter it was 338. Comparing the two quarters of 1860-61, and viewing the numbers absolutely and without reference to the increase of population, it appears that there was an *increase of births* in all the eleven divisions *except that of Monmouthshire and Wales*; for as regards this last department of the country, in which 10,686 births were registered, a difference amounting to only 16 is hardly important enough to be called an increase. But this division would have furnished no exemption to the rule of increase, if the character of its returns in their aggregate were not unfavourably affected by Merthyr Tydfil, Bridgend, Swansea, Newcastle-in-Emlyn, and Crickhowel in South Wales, in which parts a decrease has occurred both in marriages and births, chiefly perhaps in consequence of the migration of persons connected with the industrial operations of those districts.

Liverpool with a population of 269,783 produced 2,154 births, whilst Manchester with a less population, 243,616, returned 2,277. In London the births in the quarter were 23,126; in Lancashire they were 23,056.

INCREASE OF POPULATION.—The natural increase of population is the excess of births over deaths in a given time. This *excess* was 70,514 in the quarter, or an average of 766 in a day. The natural growth is weakened or strengthened by migration.

Last quarter 19,892 *persons left ports* in the United Kingdom, at which there are Government emigration officers. Of these, 6,348 went to the United States 4,930 to the North American Colonies, 7,100, to the Australian Colonies, 1,514 to other places. Of the total number of emigrants 8,942 were of English origin, and of these a large proportion chose the Australian Colonies. The Scotch preferred the North American Colonies to the United States.*

In the summer quarter of 1851, the total number of emigrants from the United Kingdom to the United States was 68,931, in that of last year it was 21,104, and in the present year the number for the quarter declined to 6,348. British North America has received a certain number of those, who would have preferred the United States in a more peaceful time; but a great majority have decided to remain at home.

PRICES, THE WEATHER, AND PAUPERISM.—The average price of *consols* in the quarter fell to 91½. The average price of *wheat* per quarter was 52s. 1d., which is less by 7s. than it was in the same quarter of last year, but higher by 8s. than in that of 1859. Both beef and mutton are cheaper than they were at the same time last year. The average price of the best potatoes has fallen in the same periods from 135s. per ton to 97s. 6d.

The meteorological character of last summer was so far different from that of the summer which preceded it, that its mean temperature at Greenwich was 60° 4', having been higher by 4° 2'. Till August 3rd, the temperature of the air was generally rather below the average; warm weather set in on the 4th, and continued thirty-nine days; from September 12th till September 27th, the weather for the most part was cold. On August 12th the mean temperature was 72° 9', nearly 12° in excess of the average, and higher by 10° than the highest mean temperature in 1860. On the same day the thermometer in the shade rose to 89° 5', or 18° higher than the highest point in 1860, which was 76° 5' on May 23rd. The temperature of the last day of September was remarkable; the mean was 61° 5', and the highest 74°; and going back as far 1814, this is the only instance in which the mean temperature of September 30th, reached 60°. Hardly more than half an inch of *rain* fell in August; the total fall in the three months was 4½ in., which is 3½ in. *below the average of forty-six summers*. In July the weather was unsettled all over England; in the other months it was very fine, with little rain in some parts; but unsettled with much rain in others. For these and other interesting facts, stated in greater detail, Mr. Glaisher's Report, which is subjoined, may be consulted.

The returns of *pauperism* which were heavy in the early part of the year, continued heavier in the summer quarter than they were in the same period of last year.

STATE OF THE PUBLIC HEALTH.—The *number of deaths* registered in the three months was 100,986 *considerably more* than in the same quarter of 1860, which was 86,423, but less than in that of 1859. And over England the fluctuation in the deaths was generally similar to that which is shown in the aggregate number. The *annual rate of mortality* did not rise quite to the average; for the former was 199 in 10,000 of the population, the latter is 202. In the cold September quarter of 1860 the rate was 171.

The mortality in the *country* and small towns was 178, whereas that of the

* From a Return with which the Registrar-General has been favoured by the Emigration Commissioners: the number returned as of English origin was 5,617, while the birthplace of 7,396 emigrants was not distinguished; in the above statement a proportional number of these has been added to those returned as of English origin.

CONSOLS, PROVISIONS, PAUPERISM, and TEMPERATURE, in each of the nine
QUARTERS ended 30th September, 1861.

1 Quarters ending	2 Average Price of Consols (for Money).	3 Average Price of Wheat per Quarter in England and Wales.	4 5 Average Prices of Meat per lb. at Londonhall and Newgate Markets (by the Carcase), with the Mean Prices.		6 Average Prices of Potatoes (York Regents) per Ton at Watnside Market, Southwark.	7 8 Pauperism.		9 Mean Tem- peratures.
			Beef.	Mutton.		Quarterly Average of the Number of Paupers relieved on the last day of each week.		
						In-door.	Out-door.	
1859	£	s. d.	d. d. d.	d. d. d.	s. s. s.			°
30 Sept.	95½	44 0	4½—6½ 5½	4½—6½ 5½	65—105 85	100,582	682,867	62½
31 Dec.	96½	43 4	4—6½ 5½	4½—6½ 5½	85—120 102	109,429	683,962	43½
1860								
31 Mar.	94½	44 5	3½—6½ 5½	4½—6½ 5½	115—145 130	118,523	717,264	38½
30 June	94½	52 8	4½—6½ 5½	5½—7½ 6½	125—160 142	107,050	692,384	50½
30 Sept.	93½	59 1	4½—7 5½	5½—7½ 6½	125—145 135	101,680	667,680	56½
31 Dec.	93½	56 9	3½—6½ 4½	4½—6½ 5½	115—130 122	115,158	673,680	42½
1861								
31 Mar.	91½	55 1	4—6½ 5½	5½—7½ 6½	140—155 147	131,501	758,441	39½
30 June	91½	54 9	4½—6½ 5½	5½—7½ 6½	120—140 130	117,802	713,785	51½
30 Sept.	91½	52 1	4½—6½ 5½	4½—7 5½	85—110 97	112,932	693,649	60½

Col. 6 is deduced from the Weekly Tables published in the *Economist*. The average of the highest and of the lowest weekly prices is here shown in cols. 4, 5, and 6, and not the absolute highest or lowest price quoted at any period of the quarter.

Cols. 7 and 8 are deduced from the Returns of the Poor Law Board. The Returns now relate to 649 Unions, &c., comprising a population of 17,697,206 (in 1851), and do not include the paupers of parishes, &c., incorporated under Gilbert's Act, or still under the 43rd Elizabeth; Lunatic Paupers in Asylums and Vagrants relieved in the above Unions are also excluded. They amounted on January 1st, 1860, to—Insane Persons, 31,554; Vagrants, 1,542. The rest of the paupers on that day amounted to 817,800.

large towns was 221. The respective average rates are 176 and 235. Whence it appears that in an equal number of the population (10,000) there were 48 deaths more in towns than in country; but the health of the former was better last quarter, relatively to their own former experience, than that of the latter, for the mortality amongst the rural population slightly exceeded its average.

The town and country rates of mortality in the summer of 1860 were respectively 184 and 159. That season differed from the summer which has just passed

chiefly in this respect, that it was much colder, and consequently diarrhoea prevailed much less than it has recently done. In 10,000 persons the excess of deaths this year over those of 1860, was 37 in *towns*, and 19 in the *country*. Other causes besides diarrhoea affect in various ways the results; but the facts are sufficient to show that this complaint rules with a more deadly effect in towns, "where houses "thick and sewers annoy the air." It deserves to be noticed that the annual deaths from diarrhoea in London ranged from 452 to 841 in the years 1840-5;

DEATHS in the Summer Quarters, ended September 30th, 1854-61.—Numbers.

DEATHS, &c.	1861.	Total 1851-60, (10 Years.)	1860.	1859.	1858.	1857.	1856.	1855.	1854.
In 125 Districts and 23 Sub-districts, comprising the <i>Chief Towns</i>	54,867	528,681	45,495	55,509	53,706	55,718	48,976	46,554	67,555
In the remaining Districts and Sub-Districts of England and Wales, comprising chiefly <i>Small Towns and Country Parishes</i> ...	46,119	437,354	40,928	48,707	44,436	44,810	41,180	40,993	46,388
All England	100,986	966,035	86,423	104,216	98,142	100,528	91,155	87,546	113,843

AREA, POPULATION, DEATHS, and MORTALITY per Cent. in the Summer Quarters, ended September 30th, 1851-61.

GROUPS.	Area in Statute Acres. (England.)	Population Enumerated. (England.)		Deaths in 10 Summer Quarters, 1851-60.	Average Annual Rate of Mortality per Cent. of 10 Summer Quarters, 1851-60.	Annual Rate of Mortality per Cent. in the Summer Quarter, 1861.
		March 31st, 1861.	April 9th, 1861.			
In 125 Districts, and 23 Sub-Districts, comprising the <i>Chief Towns</i>	No. 2,149,800	No. 8,247,017	No. 9,804,598	No. 528,681	Per ct. 2·352	Per ct. 2·207
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly <i>Small Towns and Country Parishes</i>	35,175,115	9,680,592	10,258,014	437,354	1·756	1·780
All England	37,324,915	17,927,609	20,062,612	966,035	2·021	1·989

they suddenly mounted to 2,152 in 1846; they continued high during the whole period of 1847-59, which embraced two cholera epidemics; they were 3,835 in 1859, which is more than a sixth part of the deaths from diarrhoea that year in England. They fell to 1,883 in 1860. When an efficient system of drainage has come into operation in London and the large towns, and other sanitary works have sweetened the air above and the earth beneath, the permanent reduction of diarrhoea will be, it may be hoped, among the good results that will be gained; but that improvement "at home," which is so much needed by the poor, increased comfort in their dwellings and order in their habits, better food and purer drink, will probably be still more effectual in abating that disease by which so much infant life is yearly destroyed.

**MARRIAGES Registered in Quarters ended 30th June, 1861-59; and
BIRTHS and DEATHS in Quarters ended 30th September, 1861-59.**

1 DIVISIONS. (England and Wales.)	2 AREA in Statute	3 POPULATION, 1861. (Persons.)	4 5 6 MARRIAGES in Quarters ended 30th June.		
			'61.	'60.	'59.
	Acres.	No.	No.	No.	No.
ENGLD. & WALES....Totals	37,324,915	20,062,612	41,966	43,833	43,042
I. London	78,029	2,803,921	6,897	7,353	7,061
II. South Eastern	4,065,935	1,846,876	3,436	3,438	3,148
III. South Midland	3,201,290	1,295,375	1,976	2,154	1,964
IV. Eastern	3,214,099	1,142,202	1,677	1,725	1,735
V. South Western	4,993,660	1,835,551	3,651	3,803	3,617
VI. West Midland	3,865,332	2,436,137	5,127	5,342	5,365
VII. North Midland	3,540,797	1,288,718	2,771	2,906	3,008
VIII. North Western	2,000,227	2,934,722	7,067	7,348	6,701
IX. Yorkshire	3,654,636	2,015,329	4,127	4,537	4,221
X. Northern	3,492,322	1,151,281	2,726	2,499	2,429
XI. Monmthsh. & Wales	5,218,588	1,312,500	2,511	2,728	2,793

7 DIVISIONS. (England and Wales.)	8 9 10 BIRTHS in Quarters ended 30th September.			11 12 13 DEATHS in Quarters ended 30th September.		
	'61.	'60.	'59.	'61.	'60.	'59.
	No.	No.	No.	No.	No.	No.
ENGLD. & WALES....Totals	171,500	164,062	168,394	100,986	86,423	104,216
I. London	23,126	22,342	22,406	14,932	12,916	16,172
II. South Eastern	14,336	13,448	14,001	8,395	6,934	9,155
III. South Midland	10,547	10,115	10,814	6,235	5,358	6,647
IV. Eastern	9,013	8,511	9,283	5,857	4,565	6,158
V. South Western	14,386	13,482	13,881	7,612	7,071	8,517
VI. West Midland	21,525	20,777	20,779	11,416	9,675	12,627
VII. North Midland	11,080	10,777	10,978	6,529	5,454	6,466
VIII. North Western	27,184	25,708	25,992	17,316	13,959	15,506
IX. Yorkshire	18,635	17,723	18,318	10,901	9,806	10,986
X. Northern	10,982	10,509	10,788	6,107	5,185	5,849
XI. Monmthsh. & Wales	10,686	10,670	11,154	5,686	5,500	6,133

REMARKS ON THE WEATHER,

DURING THE QUARTER ENDING 30TH SEPTEMBER, 1861.

By JAMES GLAISHER, ESQ., F.R.S., &c., Sec. of the British Meteorological Society.

Till the 3rd day of *August* the temperature of the air was generally a little below the average; the mean deficiency for the first 34 days amounted to $\frac{3}{4}^{\circ}$ daily; a warm period set in on August 4th, and continued till September 11th; the average daily excess of temperature was $2\frac{1}{4}^{\circ}$, from September 12th to September 27th; the weather for the most part was cold; the average defect daily was $0^{\circ}\cdot6$ only. A warm period set in on September 28th, and continued till the end of the quarter. In July the day of highest mean temperature reached $63^{\circ}\cdot7$ only. On August 12th, it was as high as $72^{\circ}\cdot9$, being nearly 12° in excess of the average, and was higher by 10° than on July 15th, 1860, which was the day of highest mean temperature in the year 1860. On July 12th, 1861, the highest temperature reached was $76^{\circ}\cdot9$; on August 12th it was as high as $89\frac{1}{2}^{\circ}$, and this point was 13° higher than the highest temperature noted in the year 1860, which was $76^{\circ}\cdot5$ on May 23rd. On the last day of this quarter the temperature was remarkable, it rose to 74° , the mean for the day being $61^{\circ}\cdot5$, and this is the only instance, as far back as 1814, in which the mean temperature of the last day of September has been as high as 60° .

The mean high day temperature in July was $1\frac{1}{2}^{\circ}$ below its average. In August it was 3° , and in September 1° above their respective averages of the preceding 20 years; therefore the days in July were somewhat cold, and in August and September were warm.

The mean low night temperature in July was $\frac{1}{4}^{\circ}$ above, in August $\frac{1}{2}^{\circ}$ above, and in September $\frac{3}{4}^{\circ}$ below their respective averages. Therefore the nights during the past quarter have differed but little from their average.

The mean temperature of the air was 1° below in July, nearly 2° above in August, $\frac{1}{4}^{\circ}$ in excess in September, as compared with the average of the preceding 20 years.

The mean temperature of the dew point was $\frac{1}{4}^{\circ}$ below in July, was 1° above in August, and was $\frac{1}{2}^{\circ}$ below in September, their respective averages. The mean for the quarter was less than $\frac{1}{4}^{\circ}$ in excess, therefore the amount of water mixed with the air was a little greater than usual.

In July the air temperature was in defect more than the dew point, and therefore the air was more humid than usual. In August and September the temperature of the air was more in excess than the temperature of the dew-point, and therefore, the air was less than usually humid in those months. Upon the whole quarter the air was $0^{\circ}\cdot4$ in excess, whilst the dew-point was $0^{\circ}\cdot2$ in excess, and therefore the air was a trifle drier than the average.

The mean pressure of the atmosphere was nearly $\frac{1}{16}$ ths of an inch in defect in July, was $\frac{1}{16}$ th in excess in August, and was $\frac{1}{16}$ th in defect in September, from the average of the preceding 20 years.

The fall of rain in July was $2\frac{1}{2}$ inches, in August little more than half an inch, and in September was $1\frac{1}{2}$ inch. The total fall during the quarter was $4\frac{1}{2}$ inches, being $3\frac{1}{2}$ inches below the average of the preceding 46 years.

The weather in July was variable and unsettled everywhere; in August and September it was very fine at some places, with but little rain, whilst at others it was unsettled, with a good deal of rain. The fall of rain from the beginning of the year has been more than usually partial at different places. The amount for the 9 months ending with this quarter are shown in the following table:—

TABLE of the FALL of RAIN during the Nine Months ending September 30th, 1861.

Stations.	Amount.	Stations.	Amount.
	in.		in.
Guernsey	19.9	Apsley (Beds.)	17.6
Helston	23.8	Bedford	13.4
Truro	26.9	Lampeter	28.5
Teignmouth	14.4	Norwich	16.8
Exeter, St. Leonards	19.9	Diss	14.7
„ 200, High Street	18.8	Belvoir Castle	17.2
Ventnor	17.0	Derby	17.8
Osborne	17.1	Holkham	14.4
Fairlight	19.0	Nottingham	17.5
Little Bridy	26.2	Hawarden	15.9
Petersfield	24.6	Liverpool	16.4
Barastaple	25.0	Manchester	22.7
Aldershot Camp	15.8	Wakefield	17.9
Clifton	22.0	Kingsley Parsonage, Frod- sham	22.8
Greenwich	13.4	Leeds	17.2
St. John's Wood	12.7	Stonyhurst	34.2
Guildhall	13.3	York	16.5
Whitehall	13.1	Ben Rhydding	20.6
Camden Town	15.2	Otley	20.3
Battersea	15.0	Thelwall	22.0
Leyton	13.9	Scarborough	13.1
Rose Hill (Oxford)	18.1	Ile of Man	29.1
Oxford	17.0	St. Paul's Parsonage	27.4
Great Berkhamstead	17.2	Carlisle	19.7
Hartwell House	14.0	Bywell	21.0
„ Rectory	13.2	Allenheads	35.9
Royston	13.9	North Shields	18.2
Gloucester	16.4	High House (Alnwick)	20.9
Cardington	14.5		

The temperature of vegetation, as indicated by a thermometer placed on grass, was below 40° on 12 nights, and above 40° on 82 nights; the lowest was $31^{\circ}8$ in September, and the highest $57^{\circ}0$ in July.

The mean temperature of the air at Greenwich for the three months ending August, constituting the three summer months, was $61^{\circ}0$, being $1^{\circ}0$ above the average of the preceding 90 years.

1861. Months.	Temperature of										Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
	Air.			Evaporation.		Dew Point.		Air— Daily Range.		Water of the Thames				
	Mean.	Diff. from Average of 30 Years.	Diff. from Average of 30 Years.	Mean.	Diff. from Average of 30 Years.	Mean.	Diff. from Average of 30 Years.	Mean.	Diff. from Average of 30 Years.		Mean.	Diff. from Average of 30 Years.	Mean.	Diff. from Average of 30 Years.
July	60·9	-0·5	-1·0	57·1	-0·5	53·7	-0·3	18·9	-1·7	65·5	In. ·413	In. -·004	Gr. 4·6	Gr. 0·0
Aug.	63·2	+2·5	+1·9	58·9	+1·4	55·2	+1·1	21·8	+2·4	65·6	·436	+·014	4·9	+0·2
Sept.	57·1	+0·7	+0·3	53·8	-0·1	50·7	-0·4	20·1	+1·6	61·9	·370	-0·012	4·1	-0·1
Mean.....	60·4	+0·9	+0·4	56·6	+0·3	53·2	+0·2	20·3	+0·8	64·3	·406	-·001	4·5	0·0

1861. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Horizontal Move- ment of the Air.	Reading of Thermometer on Grass.				
	Mean.	Diff. from Average of 30 Years.	Mean.	Diff. from Average of 30 Years.	Mean.	Diff. from Average of 30 Years.	Amnt.	Diff. from Average of 46 Years.		Number of Nights it was			Low- est Read- ing at Night.	High- est Read- ing at Night.
										At or below 30°.	Be- tween 30° and 40°.	Above 40°.		
July	78	+ 2	In. 29·806	In. -198	Gr. 526	Gr. - 2	In. 2·2	In. -0·5	Miles. 277	0	0	31	43·0	57·0
Aug.	76	- 1	29·865	+077	528	0	0·6	-1·8	270	0	3	28	39·7	55·0
Sept.	79	- 2	29·717	-012	532	- 2	1·5	-1·0	215	0	9	31	31·8	56·3
Mean.....	78	- 3	29·739	-078	529	- 1	Sum 4·3	Sum -3·3	Mean 264	Sum 0	Sum 12	Sum 80	Lowest 31·8	Highest 57·0

Notes.—In reading this table it will be borne in mind that the sign (—) minus signifies below the average, and that the sign (+) plus signifies above the average.

ENGLAND.—*Meteorological Table, Quarter ended 30th September, 1861.*

1	2	3	4	5	6	7	8	9
NAMES OF STATIONS.	Mean Pressure of Dry Air reduced to the Level of the Sea.	Highest Reading of the Thermo- meter.	Lowest Reading of the Thermo- meter.	Range of Tem- perature in the Quarter.	Mean Monthly Range of Tem- perature.	Mean Daily Range of Tem- perature.	Mean Tem- perature of the Air.	Mean Degree of Hu- midity.
	in.	°	°	°	°	°	°	
Guernsey	29·530	73·0	48·0	25·0	19·6	8·9	58·2	88
Exeter	29·508	80·6	42·1	38·5	29·8	14·6	59·9	83
Ventnor	—	71·0	47·0	24·0	19·8	8·8	60·8	—
Barnstaple	29·493	81·3	40·2	41·1	30·1	14·6	59·3	88
Royal Observatory	29·503	89·3	37·7	51·6	38·1	20·3	60·4	77
Royston	29·495	85·2	41·6	48·6	33·3	18·2	59·0	79
Lampeter	29·469	75·0	34·0	41·0	32·2	17·6	57·2	85
Norwich	29·443	87·0	38·3	48·7	35·5	17·2	60·1	81
Belvoir Castle	29·456	80·0	36·0	44·0	34·4	18·1	58·2	76
Liverpool	29·459	75·7	46·6	29·1	21·9	10·0	58·8	78
Wakefield	29·442	82·2	33·0	49·2	42·1	17·9	58·7	81
Leeds	29·434	80·0	35·0	45·0	35·3	12·6	57·5	75
Stonyhurst	29·382	75·7	39·5	36·2	30·1	14·1	56·8	83
Scarborough	29·404	73·0	40·0	33·0	24·6	10·5	57·0	81
Isle of Man	29·390	71·2	41·4	29·8	—	—	59·1	92
North Shields	29·421	75·2	40·3	34·9	26·9	12·9	57·8	88

10	11	12	13	14	15	16	17	18
NAMES OF STATIONS.	WIND.					Mean Amount of Cloud.	RAIN.	
	Mean estimated Strength.	Relative Proportion of					Number of Days on which it fell.	Amount collected.
		N.	E.	S.	W.			
								in.
Guernsey	1·7	5	3	10	11	4·0	45	7·2
Exeter	1·0	4	2	12	13	6·3	59	7·1
Ventnor	—	2	2	8	18	—	42	6·7
Barnstaple	1·8	3	3	12	11	5·6	57	12·5
Royal Observatory	—	2	1	10	17	6·5	44	4·3
Royston	—	3	1	11	16	5·7	51	5·0
Lampeter	0·7	3	1	15	10	6·9	52	14·3
Norwich	1·3	—	—	—	—	6·0	31	7·2
Belvoir Castle	2·2	2	1	15	11	4·8	44	7·0
Liverpool	1·4	5	2	9	14	6·9	55	6·6
Wakefield	1·8	2	2	10	15	6·4	55	5·8
Leeds	2·0	4	5	11	11	7·4	55	8·0
Stonyhurst	0·8	3	3	8	15	8·1	80	17·4
Scarborough	3·0	2	0	11	17	—	27	6·0
Isle of Man	—	4	3	8	14	5·3	52	12·8
North Shields	2·1	7	2	5	15	6·6	70	6·7

of United Kingdom, 1861-60-59.—*Distribution of Exports from, United Kingdom, according to the Declared Real Value of the Exports; and the Computed Real Value (ex-duty) Imports at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (excluding Gold and Silver), Imported from, and Exported to, the following Foreign Countries, &c. (The unit 000's are omitted.)	First Six Months.					
	1861.		1860.		1859.	
	Imports from	Exports to	Imports from	Exports to	Imports from	Exports to
I.—FOREIGN COUNTRIES:	£	£	£	£	£	£
ern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	4,718,	2,137,	5,531,	1,990,	4,921,	2,267,
al Europe; viz., Prussia, Germany, Hanse Towns, Holland, and Belgium	10,809,	9,795,	10,985,	10,079,	8,721,	8,498,
ern Europe; viz., France, Portugal, Azores, Madeira, &c.), and Spain (Gibraltar and Canaries)	12,676,	6,240,	11,510,	4,748,	11,681,	4,472,
ern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	3,232,	3,785,	2,122,	2,721,	1,863,	2,556,
nt; viz., Turkey, with Wallachia and Rumania, Syria and Palestine, and Egypt	6,452,	2,704,	6,886,	3,769,	5,358,	3,671,
ern Africa; viz., Tripoli, Tunis, Algeria, and Morocco	204,	99,	73,	79,	127,	94,
ern Africa	419,	423,	649,	473,	374,	345,
ern Africa; with African Ports on the Red Sea, Aden, Arabia, Persia, Bourbon, Kooria Moorla Islands	—	23,	19,	56,	13,	249,
ern Sea; Siam, Sumatra, Java, Philippines; other Islands	570,	1,074,	643,	896,	977,	1,459,
Sea Islands	—	27,	—	3,	—	33,
including Hong Kong	5,642,	3,204,	5,526,	2,858,	5,071,	1,979,
United States of America	32,012,	5,434,	25,631,	9,486,	17,310,	11,784,
o and Central America	271,	452,	245,	284,	206,	369,
ern West Indies and Hayti	1,728,	1,037,	1,426,	806,	1,179,	1,086,
America (Northern), New Granada, Venezuela, and Ecuador	322,	730,	297,	482,	306,	524,
" (Pacific), Peru, Bolivia, Chili, and Patagonia	2,482,	1,308,	2,435,	1,339,	1,798,	204,
" (Atlantic) Brazil, Uruguay, and Buenos Ayres	1,455,	3,505,	2,022,	3,164,	1,835,	2,776,
British Fisheries; Grnland, Davis' Straits, John. Whale Fishery, & Falkland Islands	5,	3,	24,	—	30,	15,
Total.—Foreign Countries	82,997,	41,980,	76,024,	43,233,	61,770,	43,081,
II.—BRITISH POSSESSIONS:						
India, Ceylon, and Singapore	7,722,	8,628,	7,382,	9,377,	5,862,	10,442,
L. Cols.—New South Wales and Victoria	2,462,	3,767,	2,411,	4,116,	2,056,	4,065,
" So. Aus., W. Aus., Tasm., and N. Zea.	799,	1,070,	1,029,	913,	757,	893,
North America	1,050,	1,698,	697,	1,522,	717,	1,752,
W. Indies with Btsh. Guiana & Honduras	2,577,	1,249,	2,758,	1,149,	2,340,	1,093,
Natal	494,	971,	760,	953,	603,	890,
Co. of Af., Ascension and St. Helena	84,	165,	66,	166,	95,	172,
Islands	1,567,	289,	1,087,	252,	1,130,	299,
Islands	327,	326,	242,	338,	212,	316,
Total.—British Possessions	16,082,	18,163,	16,438,	18,786,	13,772,	19,922,
General Total£	99,079,	60,143,	92,462,	62,019,	75,542,	63,003,

IMPORTS. — (United Kingdom.) — First Eight Months, (January — August) 1861-60-59-58-7.—*Computed Real Value (Ex-duty), at Port of Entry, (and therefore including Freight and Importer's Profit), of Articles of Foreign and Colonial Merchandise Imported into the United Kingdom.*

(First Eight Months.) (000's omitted.) FOREIGN ARTICLES IMPORTED.		1861.	1860.	1859.	1858.	1857.
		£	£	£	£	£
RAW MATLS.— <i>Textile.</i>	Cotton Wool	30,809,	28,941,	24,039,	22,291,	22,564,
	Wool (Sheep's) ..	6,455,	7,797,	6,981,	5,600,	6,653,
	Silk	5,428,	6,243,	6,965,	3,564,	9,068,
	Flax	1,474,	2,256,	2,145,	1,465,	2,063,
	Hemp	909,	835,	1,372,	876,	821,
	Indigo	1,993,	1,893,	1,602,	1,380,	1,552,
		47,068,	47,965,	43,104,	35,176,	43,145,
" " <i>Various.</i>	Hides	1,404,	2,085,	1,884,	1,272,	2,648,
	Oils	1,937,	2,259,	1,917,	1,961,	2,194,
	Metals	2,106,	2,460,	2,215,	2,139,	2,355,
	Tallow	1,174,	1,586,	1,150,	1,087,	1,208,
	Timber	5,214,	4,513,	3,826,	2,523,	3,621,
		11,835,	12,903,	10,992,	8,982,	12,171,
" " <i>Agriculi.</i>	Guano	1,395,	923,	1,545,	2,976,	1,588,
	Seeds	1,679,	1,850,	615,	1,027,	1,228,
		3,074,	2,773,	2,160,	4,003,	2,816,
TROPICAL, & C., PRODUCE.	Tea	4,219,	5,081,	3,741,	3,301,	3,368,
	Coffee	1,491,	1,428,	1,078,	1,221,	968,
	Sugar & Molasses ..	9,487,	9,005,	8,189,	8,326,	11,565,
	Tobacco	713,	463,	420,	696,	527,
	Rice	1,024,	473,	284,	1,108,	521,
	Fruits	354,	320,	167,	184,	321,
	Wine	2,829,	3,096,	1,582,	1,391,	2,665,
	Spirits	1,084,	1,420,	1,279,	754,	2,116,
		21,201,	21,286,	16,740,	16,981,	22,675,
FOOD	Grain and Meal ..	24,693,	15,819,	12,118,	14,066,	11,665,
	Provisions	4,404,	3,693,	2,044,	2,184,	2,900,
		29,097,	19,512,	14,162,	16,250,	14,565,
Remainder of Enumerated Articles		2,312,	2,455,	2,134,	1,810,	2,665,
TOTAL ENUMERATED IMPORTS		114,588,	106,894,	89,292,	83,202,	97,885,
Add for UNENUMERATED IMPORTS (say) ..		28,647,	26,723,	22,323,	20,800,	24,472,
TOTAL IMPORTS		143,235,	133,617,	111,615,	104,002,	122,357,

EXPORTS.—(United Kingdom.)—First Nine Months, (January—September), 1861-60-59-8-7. — Declared Real Value at Port of Shipment of Articles of BRITISH and IRISH Produce and Manufactures Exported from United Kingdom.

(First Nine Months.) (Unit 000's omitted.) BRITISH PRODUCE, &c., EXPORTED.		1861.	1860.	1859.	1858.	1857.
		£	£	£	£	£
MANFRES.—Textile.	Cotton Manufactures..	28,683,	30,947,	28,957,	24,212,	23,434,
	„ Yarn	7,137,	7,378,	6,889,	7,009,	6,682,
	Woollen Manufactures	8,009,	9,463,	9,251,	7,278,	8,824,
	„ Yarn	2,656,	2,893,	2,088,	2,097,	2,361,
	Silk Manufactures ...	1,593,	1,607,	1,627,	1,362,	2,243,
	„ Yarn	214,	205,	157,	140,	301,
	Linen Manufactures...	2,942,	3,466,	3,456,	3,000,	3,640,
	„ Yarn	1,127,	3,169,	1,176,	1,261,	1,259,
		52,361,	57,328,	53,601,	46,359,	48,744,
	„ Sewed. Apparel	1,462,	1,528,	1,540,	1,359,	1,583,
	Haberd. and Millry.	2,630,	3,113,	3,332,	2,620,	3,261,
		4,092,	4,641,	4,872,	3,979,	4,844,
METALS	Hardware.....	2,496,	2,768,	2,835,	2,372,	3,050,
	Machinery	3,120,	2,644,	2,739,	2,723,	2,911,
	Iron	7,909,	9,229,	9,813,	8,817,	10,760,
	Copper and Brass.....	1,743,	2,283,	1,927,	2,063,	2,333,
	Lead and Tin	1,359,	2,006,	2,045,	1,710,	2,133,
	Coals and Culm	2,745,	2,534,	2,582,	2,437,	2,449,
		19,372,	21,465,	21,941,	20,122,	23,636,
Ceramic Manufs.	Earthenware and Glass	1,292,	1,595,	1,438,	1,303,	1,663,
Indigenous Mnfrs.	Beer and Ale	1,105,	1,571,	1,637,	1,447,	1,237,
	Butter	379,	465,	512,	382,	441,
	Cheese	95,	82,	94,	62,	88,
	Candles	215,	184,	136,	126,	224,
	Salt	297,	277,	200,	240,	284,
	Spirits	332,	230,	197,	158,	654,
	Soda.....	436,	753,	784,	587,	589,
		2,859,	3,562,	3,560,	3,002,	3,517,
Various Manufs.	Books, Printed.....	330,	364,	343,	284,	323,
	Furniture	179,	166,	171,	194,	214,
	Leather Manufactures	1,545,	1,626,	1,441,	1,505,	1,769,
	Soap	170,	193,	158,	160,	186,
	Plate and Watches ...	331,	396,	359,	333,	385,
	Stationery.....	494,	572,	630,	581,	553,
		3,049,	3,317,	3,102,	3,057,	3,430,
Remainder of Enumerated Articles		3,309,	2,951,	2,560,	2,575,	3,027,
Unenumerated Articles		7,461,	6,865,	6,963,	5,913,	6,875,
TOTAL EXPORTS		93,795,	101,724,	98,037,	86,310,	95,736,

**SHIPPING.—FOREIGN TRADE.—(United Kingdom.)—First Nine Months, (J
—Sept.), 1861-60-59-8.—Vessels Entered and Cleared with Cargoes, includ
repeated Voyages, but excluding Government Transports.**

(First Nine Months.)	1861.			1860.		1859.		1858.	
	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage (000's omitted.)
ENTERED:—									
<i>Vessels belonging to—</i>	No.	Tons.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Russia	307	91,	297	305	88,	269	77,	143	41
Sweden	786	129,	164	815	126,	693	114,	546	101
Norway	2,278	477,	209	1,978	430,	1,969	433,	1,646	35
Denmark	1,821	176,	97	2,200	213,	1,949	192,	1,724	12
Prussia and Ger. Sta.	2,777	637,	230	2,861	598,	2,692	589,	2,303	22
Holland and Belgium	1,184	162,	137	1,231	170,	1,241	173,	969	11
France	1,344	107,	79	1,377	115,	1,929	156,	2,030	17
Spain and Portugal	354	84,	238	299	80,	311	72,	777	19
Italy & other Eupn. Sta.	724	198,	278	732	206,	467	131,	97	2
United States	1,572	1,342,	854	1,020	991,	871	849,	1,042	50
All other States	10	3,	330	12	3,	16	5,	15	1
	13,157	3,406,	258	12,830	3,020,	12,407	2,791,	11,292	2,000
United Kingdom. & } Depds.	15,491	4,681,	302	14,596	4,206,	14,665	3,974,	13,944	3,300
Totals Entered	28,648	8,087,	285	27,426	7,226,	27,072	6,765,	25,236	6,300
CLEARED:—									
Russia	304	89,	292	284	83,	282	80,	161	1
Sweden	799	132,	165	828	129,	698	117,	639	10
Norway	1,519	247,	160	1,256	228,	1,431	277,	1,070	20
Denmark	2,377	232,	93	2,613	251,	2,201	218,	2,215	15
Prussia and Ger. Sta.	3,832	707,	184	3,651	666,	3,757	691,	3,768	25
Holland and Belgium	1,505	213,	141	1,493	237,	1,525	229,	1,613	12
France	3,957	372,	94	2,858	308,	2,864	307,	3,369	22
Spain and Portugal	317	84,	265	271	72,	277	67,	926	10
Italy & other Eupn. Sta.	834	233,	280	806	232,	636	184,	120	1
United States	1,225	1,071,	837	1,150	1,091,	903	859,	1,065	10
All other States	20	6,	315	12	4,	16	5,	12	1
	16,689	3,386,	203	15,222	3,296,	14,590	3,034,	14,988	100
United Kingdom. & } Depds.	20,730	5,252,	253	18,732	4,960,	18,981	4,895,	18,615	100
Totals Cleared	37,419	8,638,	238	33,954	8,256,	33,571	7,929,	33,603	200

GOLD AND SILVER BULLION AND SPECIE. — IMPORTED AND EXPORTED. — (United Kingdom.) — *Computed Real Value for the First Nine Months, (January—Sept.), 1861-60-59.*

(000's at unit end omitted.)

(First Nine Months.)	1861.		1860.		1859.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
Imported from:—	£	£	£	£	£	£
Australia	4,889,	—	4,639,	1,	6,445,	1,
So. Amca. and W. Indies	1,139,	4,118,	919,	3,783,	1,477,	2,423,
United States and Cal.	28,	26,	3,791,	796,	6,465,	1,222,
	6,056,	4,144,	9,349,	4,580,	14,387,	3,646,
France	2,471,	466,	92,	1,864,	879,	5,498,
Hanse Towns, Holl. & Belg.	703,	456,	22,	922,	365,	2,525,
Prtgl., Spain, and Gbrltr.	17,	120,	14,	217,	81,	186,
Mita., Trky., and Egypt	42,	4,	31,	18,	317,	13,
China	—	—	—	—	—	—
West Coast of Africa	73,	2,	72,	4,	71,	4,
All other Countries....	559,	31,	210,	20,	2,147,	25,
Totals Imported	9,921,	5,223,	9,790,	7,625,	18,247,	11,897,
Exported to:—						
France	964,	908,	5,805,	433,	12,215,	307,
Hanse Towns, Holl. & Belg.	14,	701,	125,	469,	901,	928,
Prtgl., Spain, and Gbrltr.	674,	3,	896,	1,	423,	—
	1,652,	1,612,	6,826,	903,	13,539,	1,235,
Ind. and China (via Egypt)	581,	5,708,	1,076,	6,767,	234,	12,802,
Danish West Indies....	35,	33,	6,	22,	137,	6,
United States	7,037,	48,	7,	2,	10,	4,
South Africa	85,	—	2,	—	2,	5,
Mauritius	—	2,	—	—	—	1,
Brasil	18,	119,	342,	120,	69,	89,
All other Countries....	749,	80,	196,	34,	505,	31,
Totals Exported	10,157,	7,602,	8,455,	7,849,	14,496,	14,173,
Excess of Imports	—	—	1,335,	—	3,751,	—
„ Exports	236,	2,379,	—	224,	—	2,276,

REVENUE.—(UNITED KINGDOM.)—30TH SEPT., 1861-60-59-8.

Net Produce in YEARS and QUARTERS ended 30TH SEPT., 1861-60-59-8.

[Unit 000's omitted.]

QUARTERS, ended 30th Sept.	1861.	1860.	1861.		Corresponding Quarter	
			Less.	More.	1859.	1858.
	£ Mins.	£ Mins.	£ Mins.	£ Mins.	£ Mins.	£ Mins.
Customs	5,982,	5,888,	—	94,	6,576,	6,115,
Excise	4,221,	5,089,	868,	—	5,549,	5,085,
Stamps	2,013,	2,053,	40,	—	1,937,	1,831,
Taxes	160,	166,	6,	—	146,	141,
Post Office	870,	800,	—	70,	780,	745,
	13,246,	13,996,	914,	164,	14,988,	13,917,
Property Tax	991,	2,281,	1,290,	—	1,874,	2,454,
	14,237,	16,277,	2,204,	164,	16,862,	16,371,
Crown Lands	66,	65,	—	1,	62,	61,
Miscellaneous	298,	316,	18,	—	340,	532,
<i>Totals</i>	14,601,	16,658,	2,222,	165,	17,264,	16,964,
			NET DECR. £2,056,934			

YEARS, ended 30th Sept.	1861.	1860.	1861.		Corresponding Years	
			Less.	More.	1859.	1858.
	£ Mins.	£ Mins.	£ Mins.	£ Mins.	£ Mins.	£ Mins.
Customs	23,488,	23,396,	—	92,	24,809,	23,473,
Excise	18,624,	20,070,	1,446,	—	18,685,	17,731,
Stamps	8,426,	8,267,	—	159,	7,988,	7,728,
Taxes	3,130,	3,257,	127,	—	3,190,	3,136,
Post Office	3,470,	3,370,	—	100,	3,255,	3,025,
	57,138,	58,360,	1,573,	351,	57,927,	55,093,
Property Tax	11,133,	10,310,	—	823,	5,686,	7,853,
	68,271,	68,670,	1,573,	1,174,	63,613,	62,946,
Crown Lands	292,	290,	—	3,	282,	277,
Miscellaneous	1,243,	1,850,	607,	—	2,096,	1,939,
<i>Totals</i>	69,806,	70,810,	2,180,	1,177,	65,991,	65,161,
			NET DECR. £1,008,817			

REVENUE (UNITED KINGDOM).—QUARTER ENDED 30TH SEPT., 1861:—
APPLICATION.

An Account showing the REVENUE and other RECEIPTS of the QUARTER ended 30th September, 1861; the APPLICATION of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.

Received:—

Surplus Balance beyond the Charge of the Consolidated Fund for the Quarter ended 30th June, 1861, viz.:—	£
Great Britain	—
Ireland	£839,748
	<hr/> 839,748
Income received in the Quarter ended 30th September, 1861, as shown on preceding page	14,601,232
Amount raised per Act 23 and 24 Victoria, cap. 109, on account of Fortifications, &c.	240,000
Amount received in the Quarter ended 30th September, 1861, in repayment of Advances for Public Works, &c.	288,490
	<hr/> £15,969,470
Balance, being the deficiency on 30th September, 1861, upon the charge of the Consolidated Fund in Great Britain, to meet the Dividends, and other charges, payable in the Quarter to 31st December, 1861, and for which Exchequer Bills (Deficiency) will be issued in that Quarter.....	3,962,613
	<hr/> £19,932,082

Paid:—

Amount applied out of the Income for the Quarter ended 30th September, 1861, in redemption of Exchequer Bills (Deficiency), for the Quarter ended 30th June, 1861	£
	2,065,934
Amount applied out of the Income to Supply Services in the Quarter ended 30th September, 1861	10,485,835
Charge of the Consolidated Fund for the Quarter ended 30th September, 1861, viz.:—	
Interest of the Permanent Debt	£5,528,862
Terminable Debt	663,732
The Civil List	100,897
Other Charges on Consolidated Fund	521,349
Advances for Public Works, &c.	300,488
	<hr/> 7,105,328
Surplus Balance in Ireland beyond the Charge of the Consolidated Fund in Ireland for the Quarter ended 30th September, 1861, viz.:	274,965
	<hr/> £19,932,082

CORN.—*Gazette Average Prices (ENGLAND AND WALES) Third Quarter of 1861.*

[This Table is communicated by H. F. JADIS, Esq., Comptroller of Corn Returns.]

Weeks ended on a Saturday 1861.	Weekly Average. (Per Impl. Quarter)					
	Wheat.	Barley.	Oats.	Rye.	Beans.	Peas.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
July 6	50 10	31 9	26 6	35 9	43 11	38 11
" 13	50 -	30 4	24 6	33 -	42 4	38 -
" 20	50 7	30 3	25 9	36 3	42 8	37 10
" 27	51 2	30 8	26 10	36 6	42 10	40 1
<i>Average for July.....</i>	50 7	30 9	25 9	36 4	42 11	39 11
August 3	51 3	30 3	24 11	39 3	42 1	39 8
" 10	51 -	30 1	25 4	36 7	43 6	38 -
" 17	50 3	30 -	25 11	37 6	42 7	37 5
" 24	50 3	32 10	26 1	35 10	43 5	36 5
" 31	52 6	34 1	24 6	37 6	44 -	34 10
<i>Average for August....</i>	51 -	31 -	25 4	37 3	43 1	36 11
Sept. 7	53 1	35 11	28 7	37 2	44 4	35 3
" 14	54 6	36 4	23 11	33 4	41 11	38 -
" 21	55 11	36 9	23 10	34 11	41 11	38 9
" 28	56 9	37 4	23 10	35 9	42 4	40 10
<i>Average for September..</i>	55 -	36 7	23 -	37 -	42 7	38 2
<i>Average for the Quarter ..</i>	52 1	32 7	24 9	36 4	42 11	38 3

RAILWAYS.—PRICES, July—September,—and TRAFFIC Jan.—September, 1861.

Total Capital Ex- pended Mins.	Railway.	For the (£100). Price on			Miles Open.		Total Traffic first 39 Weeks. unit 1000's omitted.		Traffic pr. Mile pr. Wk. first 39 Wks.		Dividends per Cent. for Half Year.					
		1 Sp.	1 Au.	1 Jy.	'61.	'60.	'61.	'60.	'61.	'60.	30 Jan. '61.	31 Dec. '60.	31 Dec. '61.			
					No.	No.	£	£	£	£	s.	d.	s.	d.	s.	d.
£																
44.0	Lond. & N. Westn.	93	92½	93½	1,031	1,004	3,288	3,300	81	84	47	6	52	6	50	-
34.7	Great Western	70½	70½	71½	761	757	1,677	1,651	56	56	22	6	35	-	30	-
13.3	Great Northern	109	107	107	330	330	1,012	996	78	77	47	6	63	9	45	-
11.3	Eastern Counties.	50½	50	49½	499	499	998	992	51	51	16	3	23	9	21	-
9.9	Brighton	117½	117	120	241	223	709	657	75	75	50	-	70	-	50	-
13.9	South-Eastern	83½	81½	81½	306	306	846	864	70	72	41	8	60	-	45	-
12.3	South-Western	95½	95½	95½	400	394	772	728	50	47	40	-	52	6	41	-
139.4		88½	88	88	3,568	3,513	9,302	9,188	66	66	38	-	51	1	40	-
21.4	Midland.....	128½	122½	120½	614	614	1,532	1,530	64	64	62	6	70	-	63	-
19.2	Lancsh. and York.	112	111	111½	395	395	1,476	1,463	95	95	55	-	60	-	55	-
11.6	Sheffield and Man.	47	45	47½	291	291	492	484	43	41	7	6	15	-	10	-
23.4	North-Eastern	105	105½	105½	789	764	1,523	1,479	50	52	52	6	57	6	52	-
4.5	South Wales	64	66	61½	171	171	274	281	41	42	27	6	30	-	20	-
80.1		91	90	89½	2,260	2,235	5,297	5,237	58½	59	41	-	46	6	40	-
9.0	Caledonian	106½	100	98	219	219	609	583	71	68	50	-	55	-	45	-
5.2	Gt. S. & Wn. Irind.	104	106	106	329	329	318	305	25	24	50	-	50	-	50	-
233.7	Gen. aver.	91½	90½	90½	6,376	6,296	15,526	15,313	61	60	40	9	49	7	41	-

wols.—Money Prices 2nd September, 92½ to ½, —1st August, 90 to ½, —1st July, 89½ to ½.
hequer Bills. „ 5s. to 1s. pm. „ 2s. dis. „ 5s. dis.

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), for Wednesday in each Week, during the THIRD QUARTER (July—Sept.) of 1861.

ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
1	2	3	4	5	6	7
Liabilities.	DATES.	Assets.			Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.
		Government Debt.	Other Securities.	Gold Coin and Bullion.		
Notes Issued.	(Wednesdays.)					
Mins. £	1861.	Mins. £	Mins. £	Mins. £	Mins. £	1861. Per ann.
25,69	July 3	11,02	3,46	11,15	20,06	16 May 6 p. ct.
25,42	" 10	11,02	3,63	10,77	20,16	
25,36	" 17	11,02	3,63	10,71	20,45	
26,00	" 24	11,02	3,63	10,87	20,15	
25,52	" 31	11,02	3,63	11,35	20,29	
26,13	Aug. 7	11,02	3,63	11,48	20,36	1 Aug. 5 ..
26,39	" 14	11,02	3,63	11,74	20,10	15 " 4½ "
26,64	" 21	11,02	3,63	11,99	20,02	
26,89	" 28	11,02	3,63	12,24	19,75	29 " 4 "
26,97	Sept. 4	11,02	3,63	12,32	20,30	
27,48	" 11	11,02	3,63	12,83	19,85	
27,82	" 18	11,02	3,63	13,17	19,83	19 Sept. 3½ "
28,08	" 25	11,02	3,63	18,43	19,97	

BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18	
Liabilities.					DATES. (Wednesdays.)	Assets.					Totals of Liabilities and Assets.
Capital and Rest.		Deposits.		Seven Day and other Bills.		Securities.		Reserve.			
Capital.	Rest.	Public.	Private.			Government.	Other.	Notes.	Gold and Silver Coin.		
Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	1861.	Mins. £	Mins. £	Mins. £	Mins. £	Mins. £	
14,55	3,31	7,29	12,09	,62	July 3	9,98	21,40	5,63	,85	37,86	
14,55	3,34	3,25	13,91	,62	" 10	9,92	19,90	5,26	,90	35,68	
14,55	3,38	2,95	13,32	,65	" 17	9,53	19,53	4,91	,87	34,85	
14,55	3,40	4,12	11,98	,63	" 24	9,61	18,85	5,37	,85	34,69	
14,55	3,41	3,70	12,19	,70	" 31	9,47	18,55	5,71	,84	34,56	
14,55	3,52	3,84	11,82	,74	Aug. 7	9,90	17,91	5,78	,88	34,47	
14,55	3,53	3,93	12,09	,73	" 14	10,00	17,63	6,29	,90	34,83	
14,55	3,53	4,70	11,84	,72	" 21	10,13	17,74	6,62	,84	35,35	
14,55	3,48	4,06	12,77	,67	" 28	10,13	17,40	7,14	,86	35,54	
14,55	3,78	4,28	12,19	,71	Sept. 4	10,36	17,70	6,67	,79	35,53	
14,55	3,79	4,87	12,36	,70	" 11	10,45	17,37	7,63	,82	36,27	
14,55	3,79	5,06	12,44	,70	" 18	10,45	17,29	7,99	,83	36,55	
14,55	3,80	5,81	11,96	,69	" 25	10,45	17,44	8,11	,81	36,81	

CIRCULATION.—COUNTRY BANKS.

Average amount of Promissory Notes in Circulation in ENGLAND and WALES, on Saturday, in each Week during the THIRD QUARTER (July–September) of 1861; and in SCOTLAND and IRELAND, at the Four Dates, as under.

ENGLAND AND WALES.				SCOTLAND.				IRELAND.		
DATES.	Private Banks. (Fixed Issues, 4'35.)	Joint Stock Banks. (Fixed Issues, 3'30.)	TOTAL. (Fixed Issues, 7'65.)	Four Weeks, ended	£5 and upwards	Under £5.	TOTAL. (Fixed Issues, 7'75.)	£5 and upwards	Under £5.	TOTAL. (Fixed Issues, 6'35.)
	Mins.	Mins.	Mins.		Mins.	Mins.	Mins.	Mins.	Mins.	Mins.
1861.	£	£	£	1861.	£	£	£	£	£	£
July 6	3,03	2,75	5,78							
" 13	3,10	2,77	5,87							
" 20	3,01	2,76	5,77							
" 27	2,98	2,73	5,71	July 27	1,49	2,59	4,08	2,98	2,63	5,61
Aug. 3	2,98	2,70	5,68							
" 10	2,99	2,69	5,68							
" 17	2,97	2,71	5,68							
" 24	2,96	2,71	5,67	Aug. 24	1,48	2,57	4,05	2,93	2,59	5,52
" 31	2,97	2,71	5,68							
Sept. 7	3,01	2,72	5,73							
" 14	3,05	2,76	5,81							
" 21	3,12	2,83	5,95	Sept. 21	1,42	2,63	4,05	2,95	2,64	5,59

FOREIGN EXCHANGES.—*Quotations as under, LONDON on Paris, Hamburg & Calcutta—and New York, Calcutta, Hong Kong & Sydney, on LONDON—with collateral calc.*

1	2	3	4	5	6	7	8	9	10	11	12	13	14
DATES.	Paris.				Hamburg.			New York.	Calcutta.			Hong Kong.	Sydney.
	London on Paris.	Bullion as arbitrated.		Prem. or Dis. on Gold per mille.	London on Hambg.	Bullion as arbitrated.			India House.	At Calcutta on London.			
		Agnst. Engd.	For Engd.			Agnst. Engd.	For Engd.						
3 m. d.	Agnst. Engd.	For Engd.	per mille.	3 m. d.	Agnst. Engd.	For Engd.	60 d. s.	60 d. s.	6 m. s.	6 m. s.	30 d. s.		
1861.		pr. ct.	pr. ct.			pr. ct.	pr. ct.	pr. ct.	d.	d.	d.	pr. ct.	
July 6 ..	25·75	—	0·4	3 p.	13·10½	—	0·7	106	26	25	55	1 p.	
„ 20 ..	·72	—	0·4	4 „	·10½	—	0·1	107	„	„	„	„	
Aug. 10 ..	·72	—	0·4	3 „	·10½	—	0·7	108	„	24½	„	„	
„ 24 ..	·77	—	0·6	3 „	·11	—	0·8	107½	„	„	„	„	
Sept. 7 ..	·75	—	0·4	5 „	·10½	—	0·6	„	„	„	„	„	
21 ..	·72	—	0·6	4 „	·10½	—	0·6	108	„	„	„	„	

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